



Schedule D – Outline of Actuarial Assumptions and Methods

- **DISABILITY:** Representative values are presented below (65% of the projected disabilities are assumed to be due to occupational causes).

Age	Men	Women
20	0.005%	0.005%
25	0.029%	0.029%
30	0.052%	0.052%
35	0.076%	0.076%
40	0.100%	0.100%
45	0.150%	0.150%
50	0.200%	0.250%
55	0.300%	0.200%
60	0.200%	0.200%

- **TERMINATION:** Assumed rates are presented below.

Years of Service	Rate
0	22%
1	22%
2	15%
3	10%
4	7%
5	7%
6	5%
7	4%
8	3%
9	3%
10-14	2%
15+	1%





Schedule D – Outline of Actuarial Assumptions and Methods

- **RETIREMENT:** Representative values are presented below.

Age	Less than 25 Years of Service	25 Years of Service or More, but Less than 30	30 Years of Service-Members with less than 25 years of Service as of 7/1/2015	31 or More Years of Service-Members with less than 25 years of Service as of 7/1/2015	30 or More Years of Service-Members with 25 or More Years of Service as of 7/1/2015
45			9.5%	9.5%	9.5%
50			9.5%	9.5%	9.5%
55		5%	15%	15%	42%
58	5%	5%	45%	25%	32%
60	5%	5%	45%	25%	26%
61	10%	10%	45%	25%	23%
62	11%	11%	45%	25%	28%
63	10%	10%	45%	25%	28%
64	10%	10%	45%	25%	28%
65	20%	20%	50%	30%	28%
66	15%	15%	50%	30%	30%
67	15%	15%	50%	30%	30%
68	15%	15%	50%	30%	30%
69	15%	15%	50%	30%	30%
70+	100%	100%	100%	100%	100%

ASSETS: The method of valuing assets is intended to recognize a “smoothed” market value of assets. Under this method, the difference between actual return on market value from investment experience and the expected return on market value is recognized over a 5-year period.

SALARY INCREASES: 3.75% per annum





Schedule E – Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.75%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.
2. The employer contributions required to support the benefits of the System are determined using the individual entry age normal cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit.

The portion of the actuarial present value allocated to a valuation year is called the normal cost. The normal cost is calculated for each individual member. The normal cost rate is defined as the total of the individual normal cost divided by the total annual covered payroll.

The portion of the actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of assets and (b) the actuarial present value of future normal cost is called the Unfunded Actuarial Accrued Liability (UAAL). The UAAL is amortized as a level percentage of the projected salaries of the present and future members of the System, over a 30 year period beginning June 30, 2014 on a closed basis.





Schedule F– Summary of Plan Provisions

1. Provisions applicable to those members who had completed 20 years of service by July 1, 1979 (Certification 7/7 Supplemented)

- a) Service retirement annuity payable:
- i. After 30 years of service; or
 - ii. At age 58 after 10 years of service; or
 - iii. At age 55 after 25 years of service.
- b) Amount of service retirement annuity:
- i. Before age 65 – member with at least 30 years of service: 75% of average compensation if age 55 at beginning date; 65% if under age 55. If member completed 30 years of service before July 1973, annuity is increased by 2% of average compensation for each year of service beyond 30 and before July 1973, but to not more than 85% of average compensation.
 - ii. Before age 65 – member with less than 30 years of service: 1.50% of average compensation per year of service for member with 20 or fewer years. Percentage increased by 0.05% for each year in excess of 20 years up to a maximum of 1.95% of average compensation per year of service. Amount reduced by ½% for each month member is under age 58 at time annuity begins.
 - iii. After age 65 – same as before age 65.
 - iv. Minimum annuity: \$250 per month.
 - v. Average compensation means the average for the highest-paid 36 months of service without limit on compensation.
 - vi. Employee contributions:
 - Complete supplementation: 7.00% of compensation.
 - Coordinated: 4.00% up to \$4,200 of compensation plus 6.50% of compensation in excess of \$4,200.





Schedule F– Summary of Plan Provisions

- 2. Provisions applicable to all members who were affected under Certification 37 and who had not completed 20 years of service by July 1, 1979 plus those members who entered the system on or after July 1, 1978 and who did not elect Certification 55 or 94 and did not elect full supplementation under Certification 54 (Certification 37/37 Coordinated)**
- a) Service retirement annuity payable:
- i. After 30 years of service and age 55; or
 - ii. At age 58 after 10 years of service; or
 - iii. At age 55 after 25 years of service.
- b) Amount of service retirement annuity:
- i. Before age 65 – member with at least 30 years of service: 75% of average compensation. Amount reduced by $\frac{1}{2}\%$ for each month member is under age 58 at time annuity begins.
 - ii. Before age 65 – member with less than 30 years of service: 1.50% of average compensation per year of service for member with 20 or fewer years. Percentage increased by 0.05% for each year in excess of 20 years up to a maximum of 1.95% of average compensation per year of service. Amount reduced by $\frac{1}{2}\%$ for each month member is under age 58 at time annuity begins.
 - iii. After age 65 – Benefit is coordinated. Annuity is reduced by $\frac{1}{2}\%$ of average compensation not in excess of the Social Security wage base in effect at retirement for each year of service up to 30 years. If member was under age 58 at beginning date, the coordination adjustment is made before application of $\frac{1}{2}\%$ reduction per month under 58.
 - iv. Minimum annuity: \$250 per month.
 - v. Average compensation means the average for the highest-paid 36 months of service, excluding that portion of compensation in any year which is in excess of \$35,000.
 - vi. Employee contributions for coordinated benefit: 5.00% of compensation up to maximum salary of \$35,000 for members with





Schedule F– Summary of Plan Provisions

25 or more years of service as of July 1, 2015, and 6.00% of compensation up to maximum salary of \$35,000 for members with less than 25 years of service as of July 1, 2015.

3. Provision applicable to all members who were affected by Certification 37 and who had not completed 20 years of service by July 1, 1979 as well as those members who entered the system on or after July 1, 1978 and later elected Certification 55 or those who elected full supplementation under Certification 54 (but not Certification 94) (Certification 55/55 Coordinated)

- a) Service retirement annuity payable:
- i. After 30 years of service; or
 - ii. At age 58 after 10 years of service; or
 - iii. At age 55 after 25 years of service.
- b) Amount of service retirement annuity:
- i. Before age 65 – member with at least 30 years of service: 75% of average compensation. Amount reduced by $\frac{1}{3}\%$ for each month member is under age 58 at time annuity begins if member had less than 25 years of service as of July 1, 2015 and reduced from age 55 for members with 25 or more years of service as of July 1, 2015.
 - ii. Before age 65 – member with less than 30 years of service: 1.50% of average compensation per year of service for member with 20 or fewer years. Percentage increased by 0.05% for each year in excess of 20 years up to a maximum of 1.95% of average compensation per year of service. Amount reduced by $\frac{1}{3}\%$ for each month member is under age 58 at time annuity begins if member had less than 25 years of service as of July 1, 2015 and reduced from age 55 for members with 25 or more years of service as of July 1, 2015.
 - iii. After age 65 – if member elected full supplementation, annuity is the same as before age 65. Otherwise, annuity is reduced by $\frac{1}{2}\%$ of average compensation at time of retirement multiplied by years of service up to 30 years.
 - iv. Minimum annuity: \$250 per month.
 - v. Average compensation means the average for the highest-paid 36 months of service, excluding that portion of compensation in any year which is in excess of \$35,000.
 - vi. Employee contributions:





Schedule F– Summary of Plan Provisions

1. Complete supplementation: 7.00% of compensation up to \$35,000 for members with 25 or more years of service as of July 1, 2015.
 2. Complete supplementation: 8.00% of compensation up to \$35,000 for members with less than 25 years of service as of July 1, 2015.
 3. Coordinated: For members with 25 or more years of service as of July 1, 2015, 4% up to \$4,200 of compensation plus 6.50% of the excess up to the compensation limit of \$35,000. For members with less than 25 years of service as of July 1, 2015, 5% up to \$4,200 of compensation plus 6.50% of the excess up to the compensation limit of \$35,000.
- 4. For those entering between January 1, 1990 and June 30, 1998 who did not elect Certification 94 (Certification 55/55 Supplemented)**
- a) Service retirement annuity payable:
 - i. After 30 years of service; or
 - ii. At age 58 after 10 years of service; or
 - iii. At age 55 after 25 years of service.
 - b) Amount of service retirement annuity:
 - i. Before age 65 – member with at least 30 years of service: 75% of average compensation. Amount reduced by $\frac{1}{3}\%$ for each month member is under age 58 at time annuity begins if member had less than 25 years of service as of July 1, 2015 and reduced from age 55 for members with 25 or more years of service as of July 1, 2015.
 - ii. Before age 65 – member with less than 30 years of service: 1.50% of average compensation per year of service for member with 20 or fewer years. Percentage increased by 0.05% for each year in excess of 20 years up to a maximum of 1.95% of average compensation per year of service. Amount reduced by $\frac{1}{3}\%$ for each month member is under age 58 at time annuity begins if member had less than 25 years of service as of July 1, 2015 and reduced from age 55 for members with 25 or more years of service as of July 1, 2015.
 - iii. After age 65 – Same as before age 65.





Schedule F– Summary of Plan Provisions

- iv. Minimum annuity: \$250 per month.
- v. Average compensation means the average for the highest-paid 36 months of service, excluding that portion of compensation in any year which is in excess of \$35,000.
- vi. Employee contributions:
 - All completely supplemented: 8.00% of compensation up to compensation limit of \$35,000 for members with 25 or more years of service as of July 1, 2015.
 - All completely supplemented: 9.00% of compensation up to compensation limit of \$35,000 for members with less than 25 years of service as of July 1, 2015.

5. Certification 94:

- a) Increase compensation up to \$50,000.
- b) Those electing coverage under the above certification agree to pay 9.00% of compensation up to \$50,000 for members with 25 or more years of service as of July 1, 2015, and 10.00% of compensation up to maximum salary of \$50,000 for members with less than 25 years of service as of July 1, 2015.

6. Certification 139:

- a) Increase compensation up to a \$60,000 maximum. The \$60,000 cap was increased by 3.00% every two years until 7/1/2014. Effective 7/1/2014, the maximum compensation is frozen at \$69,557.
- b) Those electing coverage under the above certification agree to pay 11.00% of compensation up to the applicable indexed maximum for members with 25 or more years of service as of July 1, 2015, and 12% of compensation up to the applicable indexed maximum for members with less than 25 years of service as of July 1, 2015 (see (a) above).
- c) Effective July 1, 2015, all new employees will be covered under this certification and will pay 12.00% of compensation up to the applicable indexed maximum (see (a) above).





Schedule F– Summary of Plan Provisions

7. Disability Benefits

- a) A disability retirement annuity is payable upon:
- i. Disability due to occupational causes, regardless of service, or
 - ii. Disability due to non-occupational causes after 15 years of service. If member is also eligible for a service retirement annuity, benefit payable is the higher of the two.
- b) Amount of disability retirement annuity:
- i. Before age 65 – If service connected, 50% of rate of salary (subject to applicable salary cap) at retirement. If not service connected, 90% of the member's regular retirement benefit payable by the applicable retirement benefit formula above.
 - ii. After age 65 – Reduced to amount payable by the applicable retirement benefit formula above. However, if post 65 retirement benefit plus Primary Social Security benefit is less than pre 65 disability benefit, then post 65 benefit is adjusted (increased) by the amount necessary to match pre 65 disability benefit.
 - iii. Minimum annuity: \$250 per month.

8. Vested Benefits

A member whose employment terminates after ten (10) years of service, and who does not withdraw his contributions, receives a retirement annuity payable beginning at age 60 based on the applicable retirement formula above.

9. Non-vested Termination Benefits

If termination of employment occurs prior to completing ten (10) years of service, member is entitled only to a refund of his/her own contributions. Refund of a member's own contributions can also be obtained after attainment of ten (10) years of service but in that event the vested benefit is forfeited.

10. Pre-retirement Death Benefits

- a) A pre-retirement death benefit is payable upon:





Schedule F– Summary of Plan Provisions

- i. A service-connected death, or
 - ii. A non-service connected death.
- b) Amount of pre-retirement death benefit:
- i. The widow of a deceased member whose death is service-connected receives an annuity of 50% of final salary (subject to applicable salary cap), plus \$10 per month for each child under age 18 (21 if at school) or disabled. If no annuity is paid to widow, \$20 per month per eligible child. Widow receives annuity until death or remarriage. Maximum family benefit is 75% of final salary (subject to applicable salary cap).

If there is no surviving widow or eligible children, a lump sum amount equal to the member's contributions plus one year's final salary (subject to applicable salary cap), but not less than \$6,000, will be payable to the employee's designated beneficiary.
 - ii. Should the member's death be non-service connected then a lump sum amount is paid which is equal to the member's contributions plus one year's final salary (subject to applicable salary cap), but not less than \$6,000.

11. Post-retirement Death Benefits

Member contributions are refunded to the extent that they exceed retirement payments already made, unless a reversionary annuity was elected. Minimum payment is \$600. In addition, 50% of retirement annuity is payable to the surviving spouse until death, remarriage, or until the spouse begins to receive Social Security benefits. Minimum annuity, \$75 per month; maximum annuity, \$150 per month.

12. Reversionary Annuity

Member may elect to receive a reduced annuity in order to provide a lifetime benefit after death to a spouse or relative. The benefit to the spouse or relative may be as low as \$25 per month or as high as 100% of the member's reduced annuity. This option is not permitted if member retires on a disability annuity.





Schedule F– Summary of Plan Provisions

13. Christmas Bonus

A \$400 annual bonus is given to all retired participants.





Schedule G– Schedule of Active Member Data

**SCHEDULE OF ACTIVE MEMBER DATA
AS OF JUNE 30, 2016**

Age	Completed Years of Service							Total	Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	0	0	0	0	0	0	0	0	0
20 to 24	52	0	0	0	0	0	0	52	763,338
25 to 29	337	24	0	0	0	0	0	361	6,958,941
30 to 34	311	160	61	4	0	0	0	536	14,695,335
35 to 39	297	217	420	135	1	0	0	1,070	37,580,455
40 to 44	204	201	335	449	143	0	0	1,332	54,128,037
45 to 49	137	143	314	420	417	92	1	1,524	68,445,862
50 to 54	98	131	229	369	429	497	131	1,884	91,790,413
55 to 59	60	83	151	243	378	460	386	1,761	92,801,278
60 to 64	30	39	91	156	196	234	363	1,109	66,616,731
65 to 69	7	12	38	58	76	113	247	551	36,341,832
70+	1	5	14	19	25	34	160	258	18,652,703
Total	1,534	1,015	1,653	1,853	1,665	1,430	1,288	10,438	488,774,924

Average Active Age: 49.7

Average Service: 17.7





Schedule G– Schedule of Active Member Data

**DISTRIBUTION OF ACTIVE PARTICIPANTS BY PENSION ELIGIBILITY,
CONTRIBUTORY MAXIMUM, AND PLAN TYPE**

<u>Pension Eligibility Certification</u>	<u>Contributory Maximum Certification</u>	<u>Employee Contribution Wage Base</u>	<u>Plan Type</u>	<u>Participant Count @ 6/30/2016</u>	<u>Participant Count @ 6/30/2015</u>
Cert. #7	Cert. #7	None	Coordinated	-	-
Cert. #55	Cert. #55	\$35,000	Coordinated	67	83
Cert. #37	Cert. #37	\$35,000	Coordinated	728	845
Cert. #55	Cert. #55	\$35,000	Supplemented	2,155	2,261
Cert. #7	Cert. #7	None	Supplemented	5	6
Cert. #37	Cert. #94	\$50,000	Coordinated	76	90
Cert. #55	Cert. #94	\$50,000	Supplemented	4,639	4,938
Cert. #55	Cert. #94	\$50,000	Coordinated	44	32
Cert. #37	Cert. #139*	\$69,557	Coordinated	95	110
Cert. #55	Cert. #139*	\$69,557	Coordinated	21	13
Cert. #55	Cert. #139*	\$69,557	Supplemented	<u>2,608</u>	<u>2,266</u>
				10,438	10,644

*Effective 7/1/2014, the Certification 139 contribution wage base is frozen at \$69,557.





Schedule H – Data Reconciliation

**DATA RECONCILIATION
AS OF JUNE 30, 2016**

	Active	Terminated Vested	Receiving Benefits	Total
1. Number of Participants as of June 30, 2015	10,644	443	8,247	19,334
2. Change in status during the plan year:				
a. Active to inactive	(342)	94		(248)
b. Active to retiree	(304)		304	
c. Inactive to active	93	(20)		73
d. Inactive to retired		(48)	48	
e. Retired to active				
3. No longer participating due to:				
a. Death	(1)	(10)	(188)	(199)
b. Termination / Refund	(40)	(17)		(57)
c. Deletion of duplicate data				
d. Data adjustment				
4. New participant due to:				
a. Initial participation	380			380
b. Omitted in error last year			3	3
c. Pickups and Corrections	8	3		11
d. New beneficiaries			3	3
5. Number of Participants as of June 30, 2016	10,438	445	8,417	19,300

