

November 15, 2017

# Actuarial Valuation Report

The City of Newport, Rhode Island

Fire Pension System as of July 1, 2017





## Contents

<b>Comments on the Valuation.....</b>	<b>2</b>
<b>Valuation Highlights.....</b>	<b>4</b>
<b>Schedule A: Analysis of Plan Assets .....</b>	<b>5</b>
<b>Schedule B: GASB 25 Disclosure Information .....</b>	<b>7</b>
<b>Schedule C: GASB 27 Disclosure Information .....</b>	<b>10</b>
<b>Schedule D: Forecast of Plan Contributions and Benefit Payments .....</b>	<b>11</b>
<b>Schedule E: Profiles of Population.....</b>	<b>12</b>
<b>Schedule F: Actuarial Methods and Assumptions .....</b>	<b>17</b>
<b>Schedule G: Summary of Plan Provisions as of July 1, 2017.....</b>	<b>20</b>



This report presents the results of our actuarial valuation of the City of Newport, Rhode Island Fire Pension System (the Plan) as of July 1, 2017.

The valuation includes a general discussion and comments on the various schedules included in the report. These schedules summarize the underlying calculations, asset information, participant data, plan benefits and actuarial assumptions, and should be considered an integral part of the valuation.

### **Purpose**

The main purposes of this report are to provide to the City of Newport (the City):

- The pension contribution under the City's funding policy for the 2018-2019 plan year and
- The financial condition of the Plan.

Effective July 1, 2014, the Governmental Accounting Standards Board (GASB) replaced GASB Statement No. 25 with GASB No. 67, and effective July 1, 2015, GASB replaced Statement No. 27 with GASB No. 68. In response to the GASB No. 67 and GASB No. 68 requirements, Korn Ferry Hay Group delivered to the City under separate cover a set of exhibits dated September 29, 2017. Although GASB No. 25 and GASB No. 27 are no longer applicable, we continue to provide GASB Nos. 25 and 27 information in Schedules B and C herein FOR INFORMATION PURPOSES ONLY.

### **Certification**

To the best of our knowledge, this report is complete and accurate and all costs and liabilities have been determined in conformance with generally accepted actuarial principles and on the basis of actuarial assumptions and methods which are reasonable (taking into account past experience under the Plan and reasonable expectations) and which in combination represent our best estimate of anticipated experience under the Plan.

The actuaries certifying to this valuation are members of the Society of Actuaries or other professional actuarial organizations, and meet the General Qualification Standards of the American Academy of Actuaries for purposes of issuing Prescribed Statements of Actuarial Opinion.

Respectfully submitted,

Korn Ferry Hay Group, Inc.

---

Brent M. Mowery, FSA, EA, FCA, MAAA  
Enrolled Actuary No. 17-3885

---

Craig R. Graby, EA, FCA, MAAA  
Enrolled Actuary No. 17-7319



## Comments on the Valuation

This is Korn Ferry Hay Group's sixth valuation of the Plan. This report includes results for prior years based on methods and assumptions developed by the prior actuary.

### Plan Contribution

The Valuation Highlights exhibit shows the development of the Plan's contribution for the 2018-2019 fiscal year, developed in accordance with the City's funding policy. The total contribution is \$6,383,436. This total cost has increased from \$6,142,577, which was developed for the 2017-2018 fiscal year. The main reason for the increase was recognition of prior year assets losses as a result of the asset smoothing method.

If the City wishes to pay the contribution on a monthly basis, beginning on July 31, the monthly payment would be \$515,054.

### Funding Policy

The funding requirement is the sum of two components, an annual normal cost and an amortization payment which will change from year to year in response to evolving plan experience. It is our understanding that beginning with the July 1, 2002 valuation, the amortization period was reduced from 30 to 29 years, and that for each year the amortization period decreases by one year. Thus, the amortization period for the July 1, 2017 valuation is 14 years. The normal cost and amortization is then offset by anticipated employee contributions to the Plan, to arrive at the net City contribution.

### Plan Assets

Schedule A contains information about the Plan's assets. As of June 30, 2017, the market value of the Plan's assets is \$53,692,014 and the actuarial value of plan assets is \$54,839,573. The overall rate of return achieved for the 2016-2017 plan year was 12.6 percent on a market value basis.

The asset information used for the valuation was provided by the City. We have not audited such information, but have checked it for reasonableness and consistency.

### Funding Status

Schedule B provides the information on pension plans formerly required by GASB Statement No. 25 FOR INFORMATION PURPOSES ONLY.

Schedule C provides the information on pension plans formerly required by GASB Statement No. 27 FOR INFORMATION PURPOSES ONLY.

Schedule D discloses estimated City contributions and Plan benefits over the next twenty years. This open group projection suggests that the Plan will emerge from "critical status" (i.e., have a market value funding ratio of greater than 60%) by the year 2023, if the actuarial assumptions are reflective of the actual experience.

### Participant Data

Schedule E provides a distribution of the active participants as of July 1, 2017 by age and length of service. It also shows the average salary by age and service brackets. Schedule E also includes a breakdown of the inactive participants, by age and benefit amounts.



Although we have made tests to check for the reasonableness and consistency of the participant data, we have not audited the data but have relied on it as submitted by the City.

### **Actuarial Assumptions and Methods**

Schedule F summarizes the actuarial assumptions and cost methods used for the valuation. Effective with this July 1, 2017 valuation, we adjusted the retirement assumptions to increase the probability of retirement at two service points (upon attainment of 25 years of service and 30 years of service). Otherwise, there were no changes to the actuarial assumptions or cost methods since the prior valuation.

### **Plan Provisions**

Schedule G contains a summary of the principal provisions of the plan in effect as of July 1, 2017.



## Valuation Highlights

	<u>July 1, 2016</u>	<u>July 1, 2017</u>
<b>A. Membership Data</b>		
1. Active Members		
a. Number	95	95
b. Expected covered payroll for fiscal year beginning on the valuation date	\$ 6,585,483	6,734,507
c. Average pay	\$ 69,321	70,890
d. Average age	43.1	42.8
e. Average service	14.6	14.5
2. Retired members and beneficiaries		
a. Number	116	115
b. Aggregate annual pension	\$ 5,847,461	5,961,210
c. Average annual pension	\$ 50,409	51,837
d. Average age	69.9	69.7
3. Deferred vested members		
a. Number	1	1
b. Aggregate annual pension	\$ 18,456	18,456
c. Average annual pension	\$ 18,456	18,456
d. Average age	57	58
<b>B. Basic Valuation Results</b>		
1. Normal cost <sup>1</sup>	\$ 1,657,897 (25.2%)	1,732,271 (25.7%)
2. Actuarial accrued liability		
a. Active members	\$ 29,144,412	30,995,961
b. Retirees and beneficiaries	74,246,313	75,502,848
c. Deferred vested	269,043	289,799
d. Total	\$ 103,659,768	106,788,608
3. Valuation assets	\$ 50,962,019	54,839,573
4. Unfunded actuarial accrued liability	\$ 52,697,749	51,949,035
	<b><u>July 1, 2017 to June 30, 2018</u></b>	<b><u>July 1, 2018 to June 30, 2019</u></b>
<b>C. Development of Contribution</b>		
1. Contribution for fiscal year of valuation		
a. Normal cost with interest	\$ 1,826,992	1,908,952
b. Amortization of unfunded actuarial accrued liability	4,946,267 <sup>2</sup>	5,119,438 <sup>3</sup>
c. Anticipated employee contributions with interest	(630,682)	(644,954)
d. City contribution assumed deposited June 30	\$ 6,142,577	6,383,436
2. Monthly City contribution beginning July 31	\$ 495,620	515,054

<sup>1</sup> Percentages in parentheses represent amounts as percentages of covered payroll.

<sup>2</sup> Amortized over 15 years from the valuation date as a level percentage of payroll.

<sup>3</sup> Amortized over 14 years from the valuation date as a level percentage of payroll.



## Schedule A: Analysis of Plan Assets

<b>Schedule A.1</b>		
<b>Schedule of Receipts and Disbursements</b>		
<b>1. Market Value at July 1, 2016</b>	<b>\$</b>	<b>46,760,579</b>
2. Receipts		
a. City Contributions	\$	5,918,258
b. Member Contributions		594,650
c. Net Investment Income		6,299,410
d. Total Receipts	\$	12,812,318
3. Disbursements		
a. Benefit Payments	\$	5,880,883
b. Total Disbursements	\$	5,880,883
<b>4. Market Value at June 30, 2017 (1. + 2. – 3.)</b>	<b>\$</b>	<b>53,692,014</b>

<b>Schedule A.2</b>		
<b>Trust Investment Yield for 12 Months Ending June 30, 2017</b>		
1. Asset Market Value at July 1, 2016	\$	46,760,579
2. City Contributions during the year (paid 7/1/16)		5,918,258
3. Member Contributions and Benefits paid during the year		(5,286,233)
4. Asset Market Value at June 30, 2017		53,692,014
5. Investment Increment		6,299,410
6. Approximate Average Asset Market Value (1. + 2. + [ 3. * 0.5 ])	\$	50,035,721
7. Approximate Yield Rate (5. / 6.)		12.6%



**Schedule A.3**  
**Actuarial Value of Assets as of June 30, 2017**

<b>1. Development of June 30, 2017 Expected Actuarial Value of Assets:</b>	
(a) Actuarial value of assets July 1, 2016	\$ 50,962,019
(b) Contributions for the 2016-17 plan year	
(1) Employee Contribution	594,650
(2) Employer Contributions	5,918,258
(c) Benefit payments and expenses for the 2016-17 plan year	6,016,588
(d) Interest on (a), (b) and (c) at 7.25 percent (a + b2) x 7.25% + ((b1 - c) x (1.0725 <sup>0.5</sup> - 1))	3,930,714
(e) Expected actuarial value of assets June 30, 2017 (a) + (b) - (c) + (d)	\$ 55,389,053
<b>2. Development of Amount of Difference to be Amortized</b>	
(a) Difference between expected actuarial value and market value as of June 30, 2013	\$ 0
(b) Unrecognized amount of June 30, 2013 difference: 20 percent of (2a)	0
(c) Difference between expected actuarial value and market value as of June 30, 2014	0
(d) Unrecognized amount of June 30, 2014 difference: 40 percent of (2c)	0
(e) Difference between expected actuarial value and market value as of June 30, 2015	0
(f) Unrecognized amount of June 30, 2015 difference: 60 percent of (2e)	0
(g) Difference between expected actuarial value and market value as of June 30, 2016	(5,251,800)
(h) Unrecognized amount of June 30, 2016 difference: 80 percent of (2g)	(4,201,440)
(i) Market value as of June 30, 2017	53,692,014
(j) Difference between expected actuarial value and market value as of June 30, 2017: (2i) - (1e) - (2b) - (2d) - (2f) - (2h)	\$ 2,504,401
<b>3. Development of Actuarial Value of Assets June 30, 2017</b>	
(a) 20 percent of June 30, 2013 difference: 20 percent of (2a)	\$ 0
(b) 20 percent of June 30, 2014 difference: 20 percent of (2c)	0
(c) 20 percent of June 30, 2015 difference: 20 percent of (2e)	0
(d) 20 percent of June 30, 2016 difference: 20 percent of (2g)	(1,050,360)
(e) 20 percent of June 30, 2017 difference: 20 percent of (2j)	500,880
(f) Actuarial value of assets June 30, 2017: (1e) + (3a) + (3b) + (3c) + (3d) + (3e):	\$ 54,839,573
<b>4. Unrecognized market value June 30, 2017: (2i) - (3f)</b>	<b>\$ (1,147,559)</b>
<b>5. Contribution Receivable</b>	<b>\$ 0</b>
<b>6. Actuarial Value of Assets (3f) + (5)</b>	<b>\$ 54,839,573</b>



## Schedule B: GASB 25 Disclosure Information

Note: Effective July 1, 2014, the Governmental Accounting Standards Board (GASB) replaced GASB Statement No. 25 with GASB No. 67, and effective July 1, 2015, GASB replaced Statement No. 27 with GASB No. 68. In response to the GASB No. 67 and GASB No. 68 requirements, Korn Ferry Hay Group delivered to the City under separate cover a set of exhibits dated September 29, 2017. Although GASB No. 25 and GASB No. 27 are no longer applicable, we continue to provide GASB No. 25 information here in Schedule B and GASB No. 27 information in the following Schedule C FOR INFORMATION PURPOSES ONLY.

### Schedule B.1 Actuarial Accounting Date

Date Used to Compute Benefit and Asset Values — July 1, 2017

### Schedule B.2. Method and Assumptions

All methods and assumptions used for Plan accounting are summarized in Schedule F.

<b>Schedule B.3</b>	
<b>Statement of Plan Net Assets</b>	
<b>1. Assets</b>	
a) Cash and Short Term Investments	\$ 1,671,118
b) Receivables	0
c) Investments at Fair Value	
(1) Fixed Income	8,757,739
(2) Domestic Equities	31,063,290
(3) Foreign Equities	6,247,143
(4) Alternative Investments	5,989,536
d) Total Assets	\$ 53,728,826
<b>2. Liabilities</b>	
a) Payables for Investments Purchased and Other Payables	36,812
<b>3. Net Assets Held in Trust for Pension Benefits</b>	<b>\$ 53,692,014</b>



**Schedule B.4**  
**Schedule of Funding Progress**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets</b>	<b>Actuarial Accrued Liability (AAL)</b>	<b>Unfunded AAL</b>	<b>Funded Ratio</b>	<b>Covered Payroll</b>	<b>UAAL as % of Covered Payroll</b>
6/30/02	15,992,660	57,208,592	(41,215,932)	27.95%	4,639,918	(888.29%)
6/30/03	17,726,942	61,509,869	(43,782,927)	28.82%	4,763,438	(919.15%)
6/30/04	21,427,871	64,260,714	(42,832,843)	33.35%	4,957,989	(863.92%)
6/30/05	24,426,065	66,806,255	(42,380,190)	36.56%	4,922,941	(860.87%)
6/30/06	27,413,402	68,671,042	(41,257,640)	39.92%	4,827,849	(854.58%)
6/30/07	31,256,401	72,036,981	(40,780,580)	43.39%	5,224,518	(780.56%)
6/30/08	29,605,715	74,885,370	(45,279,655)	39.53%	4,967,895	(911.45%)
6/30/09	27,980,459	78,870,565	(50,890,106)	35.48%	4,910,434	(1036.37%)
6/30/10	30,820,663	82,030,956	(51,210,293)	37.57%	4,996,160	(1024.99%)
6/30/11	32,832,334	82,907,130	(50,074,796)	39.60%	4,891,283	(1023.76%)
6/30/12	32,552,813	93,772,470	(61,219,657)	34.71%	5,532,707	(1106.50%)
6/30/13	36,727,924	93,822,904	(57,094,980)	39.15%	5,509,307	(1036.34%)
6/30/14	44,307,114	95,518,160	(51,211,046)	46.39%	5,505,579	(930.17%)
6/30/15	47,436,350	98,138,416	(50,702,066)	48.34%	6,205,276	(817.08%)
6/30/16	50,962,019	103,659,768	(52,697,749)	49.16%	6,585,483	(800.21%)
6/30/17	54,839,573	106,788,608	(51,949,035)	51.35%	6,734,507	(771.39%)



<b>Schedule B.5 Schedule of Employer Contributions</b>			
<b>Actuarial Valuation Date</b>	<b>Annual Required Contribution</b>	<b>Actual Contribution</b>	<b>Percentage Contributed</b>
7/1/94	2,576,363	1,736,686	67.41%
7/1/95	2,709,621	1,990,018	73.44%
7/1/96	2,919,663	2,760,163	94.54%
7/1/97	3,065,646	3,032,805	98.93%
7/1/98	2,961,385	3,189,318	107.70%
7/1/99	3,003,673	3,860,777	128.54%
7/1/00	3,281,802	3,567,527	108.71%
7/1/01	3,106,881	3,977,470	128.02%
7/1/02	3,285,527	4,062,000	123.63%
7/1/03	3,317,767	3,317,767	100.00%
7/1/04	4,118,543	5,118,543	124.28%
7/1/05	3,543,234	3,543,235	100.00%
7/1/06	3,352,662	5,543,234	165.34%
7/1/07	3,291,226	3,291,234	100.00%
7/1/08	3,310,557	3,491,226	105.46%
7/1/09	3,781,258	3,981,258	105.29%
7/1/10	4,359,109	4,359,109	100.00%
7/1/11	4,560,741	4,560,741	100.00%
7/1/12	4,822,711	4,822,711	100.00%
7/1/13	5,990,094	5,990,094	100.00%
7/1/14	5,778,428	6,048,094	104.67%
7/1/15	5,436,487	6,048,094	111.25%
7/1/16	5,708,437	5,918,258	103.68%



## Schedule C: GASB 27 Disclosure Information

Effective July 1, 2015, GASB No. 27 was replaced by GASB No. 68. Therefore, this schedule is presented FOR INFORMATION PURPOSES ONLY.

Schedule C - Development of the Net Pension Obligation (Asset)											
Fiscal Year Ending	Val. Interest Rate	Amort. Years	Amort. Factor	NPO at Beginning of Year	Annual Required Contribution	Interest on NPO	Adjustment to NPO	Annual Pension Cost	Actual Contribution	Increase in NPO	NPO at End of Year
6/30/94	8.00%	30	22.7490	4,387,394	2,225,668	350,992	(192,861)	2,383,799	1,551,116	832,683	5,220,077
6/30/95	8.25%	30	18.4393	5,220,077	2,576,363	430,656	(283,095)	2,723,925	1,736,686	987,239	6,207,316
6/30/96	8.25%	30	18.4393	6,207,316	2,709,621	512,103	(336,635)	2,885,090	1,990,018	895,072	7,102,388
6/30/97	8.25%	30	18.4393	7,102,388	2,919,663	585,947	(385,177)	3,120,434	2,760,163	360,271	7,462,659
6/30/98	8.25%	30	18.4393	7,462,659	3,065,646	615,669	(404,715)	3,276,601	3,032,805	243,796	7,706,455
6/30/99	8.25%	30	18.4393	7,706,455	2,961,385	635,783	(417,936)	3,179,231	3,189,318	(10,087)	7,696,368
6/30/00	8.25%	30	18.4393	7,696,368	3,003,673	634,950	(417,389)	3,221,234	3,860,777	(639,543)	7,056,825
6/30/01	8.25%	30	20.1557	7,056,825	3,281,802	582,188	(350,116)	3,513,874	3,567,527	(53,653)	7,003,172
6/30/02	8.25%	30	20.1557	7,003,172	3,106,881	577,762	(347,454)	3,337,189	3,977,470	(640,281)	6,362,891
6/30/03	8.25%	30	20.1557	6,362,891	3,285,527	524,939	(315,687)	3,494,779	4,062,000	(567,221)	5,795,670
6/30/04	8.25%	29	15.7354	5,795,670	3,317,767	478,143	(368,320)	3,427,590	3,317,767	109,823	5,905,493
6/30/05	8.25%	28	15.4540	5,905,493	4,118,543	487,203	(382,134)	4,223,612	5,118,543	(894,931)	5,010,562
6/30/06	8.25%	27	15.0842	5,010,562	3,543,234	413,371	(332,173)	3,624,432	3,543,235	81,197	5,091,759
6/30/07	8.25%	26	14.7817	5,091,759	3,352,662	420,070	(344,464)	3,428,268	5,543,234	(114,966)	4,976,793
6/30/08	8.25%	25	14.4659	4,976,793	3,291,226	410,585	(344,036)	3,357,775	3,291,234	66,541	5,043,334
6/30/09	8.25%	24	14.1363	5,043,334	3,310,557	416,075	(356,765)	3,369,867	3,491,226	(121,359)	4,921,975
6/30/10	8.25%	23	13.7923	4,921,975	3,781,258	406,063	(356,864)	3,830,457	3,981,258	(150,801)	4,771,174
6/30/11	7.50%	22	13.7826	4,771,174	4,359,109	357,838	(346,174)	4,370,773	4,359,109	11,664	4,782,838
6/30/12	7.50%	21	13.3879	4,782,838	4,560,741	358,713	(357,251)	4,562,203	4,560,741	1,462	4,784,300
6/30/13	7.50%	20	12.6151	4,784,300	4,822,711	358,823	(379,252)	4,802,282	4,822,711	(20,429)	4,763,871
6/30/14	7.50%	19	12.2251	4,763,871	5,990,094	357,290	(389,680)	5,957,704	5,990,094	(32,390)	4,731,481
6/30/15	7.50%	18	11.8170	4,731,481	5,778,428	354,861	(400,396)	5,732,893	6,048,094	(315,201)	4,416,280
6/30/16	7.25%	17	11.6044	4,416,280	5,436,487	320,180	(380,569)	5,376,098	6,048,094	(671,996)	3,744,284
6/30/17	7.25%	16	11.1394	3,744,284	5,708,437	271,461	(336,130)	5,643,768	5,918,258	(274,490)	3,469,794

Note: Amortization factors used for periods prior to FY 2001 did not reflect future longevity or promotion pay increases.



## Schedule D: Forecast of Plan Contributions and Benefit Payments

The following table discloses the estimated City contributions and benefits to be paid from the Plan over the next twenty years, under the current set of actuarial assumptions, except that this projection assumes that new entrants will enter the Plan each year. Underlying this so-called “open group” projection is the assumption that the current number of active members will remain constant throughout the projection period.

Schedule D Forecast of Plan Contributions and Benefit Payments						
FY Ending 6/30	Normal Cost	Amortization of Unfunded AL	Estimated Employee Contributions	Annual Required Contribution	Benefit Payments	Funded Percent
2019	1,908,952	5,119,438	644,954	6,383,436	6,069,885	50.3%
2020	1,918,924	5,316,262	651,165	6,584,021	6,404,049	53.0%
2021	1,878,920	5,517,222	644,668	6,751,474	6,641,270	55.8%
2022	1,876,712	5,722,652	647,035	6,952,329	6,946,646	58.7%
2023	1,854,295	5,799,364	644,338	7,009,321	7,210,936	61.7%
2024	1,844,525	5,971,051	644,672	7,170,904	7,391,957	64.7%
2025	1,869,512	6,146,615	657,179	7,358,948	7,764,078	67.9%
2026	1,862,707	6,323,979	658,476	7,528,210	8,183,455	71.2%
2027	1,828,754	6,503,677	652,347	7,680,084	8,412,660	74.7%
2028	1,848,520	6,684,948	662,472	7,870,996	8,831,654	78.3%
2029	1,814,335	6,864,908	657,956	8,021,286	9,048,020	82.2%
2030	1,829,585	7,039,943	667,164	8,202,363	9,348,788	86.2%
2031	1,839,099	7,198,029	674,660	8,362,468	9,665,486	90.6%
2032	1,829,692	7,293,675	676,937	8,446,430	9,842,634	95.2%
2033	1,867,046	-	693,033	1,174,013	10,244,776	100.1%
2034	1,842,258	-	692,438	1,149,819	10,535,452	100.2%
2035	1,829,392	-	694,803	1,134,589	10,796,096	100.3%
2036	1,828,174	-	700,749	1,127,425	10,960,162	100.4%
2037	1,869,753	-	719,501	1,150,253	11,038,988	100.5%
2038	1,901,201	-	734,326	1,166,875	11,179,408	100.6%
2039	1,941,173	-	752,985	1,188,188	11,269,410	100.8%



## Schedule E: Profiles of Population

### Schedule E.1. Number of Active Participants by Age and Duration

Active Participants (Male)								
Age Group	Duration							Total
	0- 4	5-9	10-14	15-19	20-24	25-29	30+	
0- 19	0	0	0	0	0	0	0	0
20- 24	3	0	0	0	0	0	0	3
25- 29	7	3	0	0	0	0	0	10
30- 34	2	10	3	0	0	0	0	15
35- 39	1	0	5	2	0	0	0	8
40- 44	0	0	5	9	1	0	0	15
45- 49	0	1	4	1	8	2	0	16
50- 54	0	0	2	2	5	3	1	13
55- 59	0	0	0	1	7	3	0	11
60- 64	0	1	0	0	0	3	0	4
65+	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>13</b>	<b>15</b>	<b>19</b>	<b>15</b>	<b>21</b>	<b>11</b>	<b>1</b>	<b>95</b>
	<b>AVG AGE</b>		<b>42.79</b>	<b>AVG DUR</b>			<b>14.51</b>	

Note: No female actives



## E.2. Number of Inactive Participants by Age and Annual Pension

Inactive Participants (Retirees)						
Age Group	Male		Female		Total	
	Number	Annual Pension	Number	Annual Pension	Number	Annual Pension
35-39	0	0	0	0	0	0
40-44	0	0	0	0	0	0
45-49	1	38,793	0	0	1	38,793
50-54	2	119,474	0	0	2	119,474
55-59	10	606,282	0	0	10	606,282
60-64	16	1,006,512	0	0	16	1,006,512
65-69	18	1,134,363	0	0	18	1,134,363
70-74	26	1,358,753	0	0	26	1,358,753
75-79	5	287,829	0	0	5	287,829
80-84	4	230,253	0	0	4	230,253
85-89	4	251,569	0	0	4	251,569
90-94	1	48,354	0	0	1	48,354
95-99	0	0	0	0	0	0
100-104	0	0	0	0	0	0
105-109	0	0	0	0	0	0
110-114	0	0	0	0	0	0
115-119	0	0	0	0	0	0
120+	0	0	0	0	0	0
<b>TOTAL</b>	<b>87</b>	<b>5,082,182</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>5,082,182</b>
	<b>AVG AGE:</b>	<b>68.4</b>	<b>AVG AGE:</b>	<b>0.0</b>	<b>AVG AGE:</b>	<b>68.4</b>
	<b>AVG PENSION:</b>	<b>58,416</b>	<b>AVG PENSION:</b>	<b>0</b>	<b>AVG PENSION:</b>	<b>58,416</b>



Inactive Participants (Disabled)						
Age Group	Male		Female		Total	
	Number	Annual Pension	Number	Annual Pension	Number	Annual Pension
20- 24	0	0	0	0	0	0
25- 29	0	0	0	0	0	0
30- 34	0	0	0	0	0	0
35- 39	0	0	0	0	0	0
40- 44	0	0	0	0	0	0
45- 49	1	46,730	0	0	1	46,730
50- 54	0	0	0	0	0	0
55- 59	1	45,487	0	0	1	45,487
60- 64	0	0	0	0	0	0
65- 69	2	111,122	0	0	2	111,122
70- 74	2	114,216	0	0	2	114,216
75- 79	1	5,000	0	0	1	5,000
80- 84	0	0	0	0	0	0
85- 89	0	0	0	0	0	0
90- 94	0	0	0	0	0	0
95- 99	0	0	0	0	0	0
100-104	0	0	0	0	0	0
105-109	0	0	0	0	0	0
110-114	0	0	0	0	0	0
115-119	0	0	0	0	0	0
120+	0	0	0	0	0	0
<b>TOTAL</b>	<b>7</b>	<b>322,555</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>322,555</b>
	<b>AVG AGE:</b>	<b>65.0</b>	<b>AVG AGE:</b>	<b>0.00</b>	<b>AVG AGE:</b>	<b>65.0</b>
	<b>AVG PENSION:</b>	<b>46,079</b>	<b>AVG PENSION:</b>	<b>0.0</b>	<b>AVG PENSION:</b>	<b>46,079</b>



<b>Inactive Participants (Beneficiaries)</b>						
<b>Age Group</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>	
	<b>Number</b>	<b>Annual Pension</b>	<b>Number</b>	<b>Annual Pension</b>	<b>Number</b>	<b>Annual Pension</b>
20- 24	0	0	0	0	0	0
25- 29	0	0	0	0	0	0
30- 34	0	0	0	0	0	0
35- 39	0	0	0	0	0	0
40- 44	0	0	0	0	0	0
45- 49	0	0	0	0	0	0
50- 54	0	0	1	30,424	1	30,424
55- 59	0	0	0	0	0	0
60- 64	0	0	3	108,530	3	108,530
65- 69	0	0	4	111,568	4	111,568
70- 74	0	0	3	64,667	3	64,667
75- 79	0	0	1	24,560	1	24,560
80- 84	0	0	1	21,729	1	21,729
85- 89	0	0	4	114,929	4	114,929
90- 94	0	0	3	63,648	3	63,648
95- 99	0	0	1	16,418	1	16,418
100-104	0	0	0	0	0	0
105-109	0	0	0	0	0	0
110-114	0	0	0	0	0	0
115-119	0	0	0	0	0	0
120+	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>556,473</b>	<b>21</b>	<b>556,473</b>
	<b>AVG AGE:</b>	<b>0.0</b>	<b>AVG AGE:</b>	<b>76.5</b>	<b>AVG AGE:</b>	<b>76.5</b>
	<b>AVG PENSION:</b>	<b>0</b>	<b>AVG PENSION:</b>	<b>26,499</b>	<b>AVG PENSION:</b>	<b>26,499</b>



<b>Inactive Participants (Vested Terms)</b>						
<b>Age Group</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>	
	<b>Number</b>	<b>Annual Pension</b>	<b>Number</b>	<b>Annual Pension</b>	<b>Number</b>	<b>Annual Pension</b>
20- 24	0	0	0	0	0	0
25- 29	0	0	0	0	0	0
30- 34	0	0	0	0	0	0
35- 39	0	0	0	0	0	0
40- 44	0	0	0	0	0	0
45- 49	0	0	0	0	0	0
50- 54	0	0	0	0	0	0
55- 59	0	0	1	18,456	1	18,456
60- 64	0	0	0	0	0	0
65- 69	0	0	0	0	0	0
70- 74	0	0	0	0	0	0
75- 79	0	0	0	0	0	0
80- 84	0	0	0	0	0	0
85- 89	0	0	0	0	0	0
90- 94	0	0	0	0	0	0
95- 99	0	0	0	0	0	0
100-104	0	0	0	0	0	0
105-109	0	0	0	0	0	0
110-114	0	0	0	0	0	0
115-119	0	0	0	0	0	0
120+	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>18,456</b>	<b>1</b>	<b>18,456</b>
	<b>AVG AGE:</b>	<b>0.0</b>	<b>AVG AGE:</b>	<b>58.0</b>	<b>AVG AGE:</b>	<b>58.0</b>
	<b>AVG PENSION:</b>	<b>0</b>	<b>AVG PENSION:</b>	<b>18,546</b>	<b>AVG PENSION:</b>	<b>18,546</b>



## Schedule F: Actuarial Methods and Assumptions

### Actuarial Cost Method:

Individual Entry Age Normal Actuarial 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 normal cost is the portion of the actuarial present value allocated to the valuation year. For inactive members, the actuarial accrued liability is equal to the present value of benefits. Inactive members do not have a normal cost. The portion of this actuarial present value not provided for at the valuation date by the sum of the actuarial value of the assets and actuarial present value of future normal costs is the unfunded actuarial accrued liability. The unfunded actuarial accrued liability represents the excess of the total actuarial accrued liability over the valuation assets.

### Asset Valuation Method:

Funding: 5-year smoothed market value;

Accounting (GASB Nos. 67 & 68): market value

### Actuarial Assumptions:

1. *Interest* 7.25% per year, net of investment expenses, effective June 30, 2016.
2. *Salary Increases* First 10 years beginning with July 1, 2012: 2.75% per year. Thereafter, 3.00% per year plus longevity increases of 3.00% after seventh year of employment and 0.50% for each year of employment thereafter through the thirty-first year of employment. No longevity increases are assumed after the thirty-first year of employment.
3. *Cost of Living Increases* Members retired prior to August 26, 2011: 2.75% for 10 years beginning with July 1, 2012, 3.0% thereafter. Members retired on or after August 26, 2011: Bureau of Labor Statistics CPI for Northeast Urban Wage Earners, not exceeding 3.00% or less than 0.50%, except that for retirees after July 1, 2012, approximated the temporary 10 years of 2.75% salary increases and 3.0% thereafter by assuming cost of living increases of 2.9% in all future years.
4. *Mortality*
  - a. *Healthy Members* RP-2000 Combined Healthy Mortality Table, applied on a fully generational basis using Mortality Projection Scale AA. This table contains sufficient margin for improvement in life expectancy.
  - b. *Disabled Members* The 1985 Wyatt Pension Disability Table (unisex rates)



5. *Disability*

Rates of disability are based on an employee's age. Selected ages are listed below. 90% of disabilities are assumed to be service related.

<b>Attained Age</b>	<b>Probability of Disability</b>
25	0.17%
35	0.29%
45	0.72%
55	1.21%

6. *Withdrawal*

Rates of withdrawal are based on an employee's length of service, as follows:

<b>Years of Service</b>	<b>Probability of Withdrawal</b>
<1	<b>3.00%</b>
1	<b>2.25%</b>
2	<b>2.00%</b>
3	<b>1.75%</b>
4	<b>1.50%</b>
5	<b>1.25%</b>
6	<b>1.00%</b>
7	<b>0.75%</b>
8	<b>0.50%</b>
9	<b>0.25%</b>
10+	<b>0.00%</b>

7. *Retirement*

Rates of retirement are based on an employee's length of service, as follows:

<b>Years of Service</b>	<b>Probability of Retirement 7/1/17 Valuation</b>	<b>Probability of Retirement Prior Valuation</b>
20	10%	10%
21	2%	2%
22	2%	2%
23	2%	2%
24	2%	2%
25	50%	40%
26	10%	10%
27	10%	10%
28	10%	10%
29	10%	10%
30	50%	40%
31	20%	20%
32	20%	20%
33	20%	20%
34	20%	20%
35+	100%	100%



- |                                       |   |
|---------------------------------------|---|
| 8. <i>Administrative Expenses</i>     | Assumed to be paid by the Plan Sponsor outside the trust.   |
| 9. <i>Benefit Compensation Limits</i> | Benefit limits under Section 415 and compensation limits under Section 401(a)(17) of the Internal Revenue Code are assumed to have no impact on benefits earned under this Plan.  |
| 10. <i>Marriage/Dependents</i>        | 90% of active firefighters are assumed to be married. For all participants, wives are assumed to be three years younger than their husbands. For the purposes of valuing the death benefit, unmarried members are assumed to have no dependent children at death. |
| 11. <i>Valuation Date</i>             | July 1, 2017.   |



## Schedule G: Summary of Plan Provisions as of July 1, 2017

### 1. Effective Dates

a. *Most recent amendment* August 31, 2011

### 2. Eligibility

All firefighters who contribute to the pension fund.

### 3. Retirement

a. *Eligibility*

Members retired prior to July 1, 2011: 20 years of service.  
Members retired on or after July 1, 2011: earlier of attainment of age 58 or completion of 30 years of service.

b. *Benefit Formula*

The annual benefit at retirement is equal to the percentage of final annual salary specified in the table below, plus \$100 per year for each year of service over 25 (maximum \$1,000). For pension purposes, annual salary includes regular and longevity pay.

Years of Service	Benefit as a Percentage of Final Annual Salary
20	50.0%
21	52.0%
22	54.0%
23	56.0%
24	58.0%
25	65.0%
26	66.0%
27	67.0%
28	68.0%
29	69.0%
30+	70.0%

c. *Commencement Date*

Retirement benefits commence as of the first payroll period after retirement.

d. *Form of Payment*

The annual benefit calculated in accordance with the formula in (b) above is payable monthly for the remainder of the retired member's life, with 67.5% of the member's benefit payable for the lifetime of the member's surviving spouse.

### 4. Vested Termination

a. *Eligibility*

Upon termination of employment after 10 years of service, a member is eligible for a benefit deferred to retirement age.

b. *Benefit Formula*

2.5% of final annual salary multiplied by full years of service at termination.

c. *Commencement Date*

25th anniversary of employment.

d. *Form of Payment*

Same as retirement.

### 5. Disability Retirement

a. *Eligibility*

A member who is retired because of mental or physical incapacity is eligible to receive disability retirement benefits.



*b. Benefit Formula*

i. Non-Service Related If a member has fewer than 10 years of service, benefit is 25% of final annual salary.

If a member has more than 10 years of service, benefit is 25% of final annual salary plus an additional 2.5% of final annual salary for each year over 10, up to a maximum of 62.5% of final annual salary.

ii. Service Related 66-2/3% of final annual salary.

iii. Regular Retirement If an employee has 25 or more years of service at disability, his pension will be the greater of the disability or retirement pension.

*c. Commencement Date* Benefits commence as of first payroll period after disability.

*d. Form of Payment* Same as retirement.

**6. Non-Vested Termination of Employment**

A member who leaves employment prior to completing 10 years of service will receive a lump sum payment of accumulated contributions.

**7. Death Before Retirement – Survivor Annuity Benefits**

*a. Eligibility* Death while actively employed.

*b. Benefit Formula* Surviving spouse (or, if none, dependent children) receives benefit of 67.5% of final annual salary, reduced pro rata if the deceased member had less than 20 years of service.

*c. Commencement Date* Benefits commence as of the first payroll period after death.

*d. Form of Payment* Monthly life annuity.

**8. Retiree Cost of Living Increase**

Members retired prior to August 26, 2011: Pensions for retirees and disabled retirees (but not beneficiaries) are indexed to the negotiated pay increases for active firefighters. Terminated vested members receive 3% annual increases after benefit commencement.

Members retired on or after August 26, 2011: For those entitled to annual increases, they will equal the Bureau of Labor Statistics CPI for Northeast Urban Wage Earners, but will not exceed 3% nor be lower than 0.5%.

**9. Employee Contributions** 9% of salary.



KORN FERRY™  
| HayGroup

© Copyright 2017, Korn Ferry

ALL RIGHTS RESERVED. Do not modify or create derivative works from contents.