Municipal Fire and Police Retirement System of Iowa

Required GASB 68 Reporting Information as of and for the Year Ended June 30, 2020, and Related Independent Auditor's Report

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Independent Auditor's Report

To the Board of Trustees Municipal Fire and Police Retirement System of Iowa Des Moines, Iowa

Report on Schedule of Allocations and Net Pension Amounts by Employer

We have audited the accompanying schedules of net pension liability (NPL) by city (proportionate share, share of NPL as of June 30, 2020, covered payroll, NPL as a percent of covered payroll) as of June 30, 2020, and the schedules of deferred inflows of resources by city (expected and actual experience, changes in assumptions, difference between projected and actual earnings and total deferred inflows), deferred outflow of resources by city (expected and actual experience, changes in assumptions, difference between projected and actual earnings and total deferred outflows), for the Municipal Fire and Police Retirement System of Iowa (the System) as of June 30, 2020, and the related schedule of pension expense by city (collectively the Schedules) for the year then ended, and the related notes to the Schedules.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of the Schedules in accordance with accounting principles generally accepted in the United States of America; this includes design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the Schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these Schedules based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedules are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Schedules. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Schedules, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the Schedules in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the Schedules.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the Schedules referred to above present fairly, in all material respects, the schedules of NPL by city (proportionate share, share of NPL as of June 30, 2020, covered payroll, NPL as a percent of covered payroll), deferred inflows of resources by city (expected and actual experience, changes in assumptions, projected and actual earnings and total deferred inflows), deferred outflow of resources by city (expected and actual experience, changes in assumptions, projected and actual earnings and total deferred outflows), and pension expense by city for the System as of and for the year ended June 30, 2020, in accordance with accounting principles generally accepted in the United States of America.

Other Matters

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the System as of and for the year ended June 30, 2020, and our report thereon, dated October 13, 2020, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of the System's management, the System's Board of Trustees, System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Side Sailly LLP
Boise, Idaho
March 31, 2021

As of June 30, 2020

	Donas autionata		Carranad	NPL as % of
City	Proportionate	Chara of NDI	Covered	Covered
City	Share (%)	Share of NPL \$ 21,356,506	Payroll * \$ 8,506,982	Payroll 251 05%
Ames	2.68%	. , ,		251.05%
Ankeny	2.56%	20,443,126	8,143,154	251.05%
Bettendorf	1.87%	14,944,413	5,952,840 1,710,585	251.05%
Boone	0.54%	4,316,964	1,719,585	251.05%
Burlington	1.83%	14,592,361	5,812,606	251.05%
Camanche Carroll	0.25% 0.29%	2,015,967	803,024 929,120	251.05%
Cedar Falls	1.86%	2,332,526		251.05%
	9.15%	14,834,799 72,996,443	5,909,177	251.05%
Cedar Rapids Centerville	0.24%		29,076,829	251.05%
	0.24%	1,900,586	757,064	251.05%
Charles City Clinton	1.91%	2,507,927	998,988	251.05%
Clive	0.62%	15,222,273	6,063,521 1,963,177	251.05%
Council Bluffs		4,928,492		251.05%
Creston	5.84% 0.29%	46,560,029	18,546,356	251.05%
	7.73%	2,277,276 61,670,200	907,112	251.05%
Davenport Decorah	0.29%		24,565,222	251.05%
Decoraii Des Moines	18.22%	2,279,167	907,865 57,896,306	251.05% 251.05%
Dewitt	0.21%	145,346,816 1,684,036	670,806	
	4.73%		15,031,678	251.05%
Dubuque Estherville	0.23%	37,736,544		251.05%
Evansdale	0.23%	1,798,150	716,261 407,755	251.05%
Fairfield	0.13%	1,023,656 2,195,140	874,395	251.05%
Fort Dodge	1.62%	12,901,528	5,139,093	251.05% 251.05%
Fort Madison	0.67%	5,381,202	2,143,505	251.05%
Grinnell	0.38%	3,040,867	1,211,275	251.05%
Indianola	0.48%	3,833,211	1,526,891	251.05%
Iowa City	3.62%	28,881,737	11,504,524	251.05%
Keokuk	0.74%	5,910,266	2,354,249	251.05%
Knoxville	0.25%	1,965,510	782,926	251.05%
Lemars	0.34%	2,673,468	1,064,928	251.05%
Maquoketa	0.21%	1,651,990	658,041	251.05%
Marion	1.99%	15,865,905	6,319,900	251.05%
Marshalltown	1.43%	11,374,139	4,530,685	251.05%
Mason City	1.88%	15,030,937	5,987,305	251.05%
Muscatine	1.73%	13,762,928	5,482,216	251.05%
Newton	1.03%	8,244,770	3,284,157	251.05%
Oelwein	0.21%	1,649,421	657,018	251.05%
Oskaloosa	0.46%	3,701,432	1,474,399	251.05%
Ottumwa	1.51%	12,064,055	4,805,501	251.05%
Pella	0.36%	2,875,150	1,145,264	251.05%
Sioux City	6.06%	48,346,997	19,258,162	251.05%
Spencer	0.50%	3,980,520	1,585,569	251.05%
Storm Lake	0.38%	3,007,440	1,197,960	251.05%
Urbandale	2.32%	18,498,002	7,368,349	251.05%
Waterloo	5.47%	43,638,986	17,382,810	251.05%
Waverly	0.35%	2,783,633	1,108,810	251.05%
Webster City	0.28%	2,221,811	885,019	251.05%
West Des Moines	3.68%	29,350,997	11,691,445	251.05%
Total	100.00%	\$ 797,600,299	\$ 317,709,825	251.05%

^{*} Represents reported covered payroll. Amount reported is based on pensionable payroll and not total payroll. Please consult your auditor when presenting covered payroll in your reports.

		Difference				
		Between		Difference	Contributions	
		Expected and		Between	Made After	
	Proportionate	Actual	Changes in	Projected and	Measurement	Total Deferred
City	Share (%)	Experience	Assumptions	Actual Earnings	Date	Outflows
Ames	2.68%	\$ 587,188	\$ 529,025	\$ 3,677,584	TBD	\$ 4,793,797
Ankeny	2.56%	562,075	506,400	3,520,300	TBD	4,588,775
Bettendorf	1.87%	410,890	370,190	2,573,424	TBD	3,354,504
Boone	0.54%	118,693	106,936	743,380	TBD	969,009
Burlington	1.83%	401,210	361,470	2,512,800	TBD	3,275,480
Camanche	0.25%	55,428	49,938	347,149	TBD	452,515
Carroll	0.29%	64,132	57,779	401,660	TBD	523,571
Cedar Falls	1.86%	407,876	367,475	2,554,548	TBD	3,329,899
Cedar Rapids	9.15%	2,007,005	1,808,206	12,569,966	TBD	16,385,177
Centerville	0.24%	52,256	47,080	327,280	TBD	426,616
Charles City	0.31%	68,954	62,124	431,864	TBD	562,942
Clinton	1.91%	418,530	377,073	2,621,271	TBD	3,416,874
Clive	0.62%	135,507	122,084	848,685	TBD	1,106,276
Council Bluffs	5.84%	1,280,147	1,153,346	8,017,623	TBD	10,451,116
Creston	0.29%	62,613	56,411	392,146	TBD	511,170
Davenport	7.73%	1,695,595	1,527,642	10,619,590	TBD	13,842,827
Decorah	0.29%	62,665	56,458	392,472	TBD	511,595
Des Moines	18.22%	3,996,245	3,600,405	25,028,683	TBD	32,625,333
Dewitt	0.21%	46,302	41,716	289,991	TBD	378,009
Dubuque	4.73%	1,037,549	934,778	6,498,222	TBD	8,470,549
Estherville	0.23%	49,439	44,542	309,641	TBD	403,622
Evansdale	0.13%	28,145	25,357	176,273	TBD	229,775
Fairfield	0.28%	60,354	54,376	378,002	TBD	492,732
Fort Dodge	1.62%	354,722	319,586	2,221,639	TBD	2,895,947
Fort Madison	0.67%	147,954	133,299	926,641	TBD	1,207,894
Grinnell	0.38%	83,607	75,326	523,636	TBD	682,569
Indianola	0.48%	105,392	94,953	660,078	TBD	860,423
Iowa City	3.62%	794,090	715,434	4,973,427	TBD	6,482,951
Keokuk	0.74%	162,500	146,404	1,017,746	TBD	1,326,650
Knoxville	0.25%	54,041	48,688	338,460	TBD	441,189
Lemars	0.34%	73,506	66,225	460,370	TBD	600,101
Maquoketa	0.21%	45,421	40,922	284,472	TBD	370,814
Marion	1.99%	436,226	393,017	2,732,104	TBD	3,561,347
Marshalltown	1.43%	312,727	281,751	1,958,623	TBD	2,553,101
Mason City	1.88%	413,269	372,334	2,588,323	TBD	3,373,926
Muscatine	1.73%	378,406	340,924	2,369,972	TBD	3,089,302
Newton	1.03%	226,686	204,232	1,419,747	TBD	1,850,665
Oelwein	0.21%	45,350	40,858	284,030	TBD	370,238
Oskaloosa	0.46%	101,769	91,689	637,385	TBD	830,843
Ottumwa	1.51%	331,696	298,841	2,077,427	TBD	2,707,964
Pella	0.36%	79,051	71,221	495,100	TBD	645,372
Sioux City	6.06%	1,329,279	1,197,611	8,325,339	TBD	10,852,229
Spencer	0.50%	109,443	98,602	685,444	TBD	893,489
Storm Lake	0.38%	82,688	74,498	517,880	TBD	675,066
Urbandale	2.32%	508,594	458,217	3,185,351	TBD	4,152,162
Waterloo	5.47%	1,199,834	1,080,988	7,514,621	TBD	9,795,443
Waterloo	0.35%	76,535	68,954	479,341	TBD	624,830
Webster City	0.28%	61,088	55,037	382,595	TBD	498,720
West Des Moines	3.68%	806,993	727,058	5,054,233	TBD	6,588,284
Total	100.00%	\$ 21,929,665	\$ 19,757,480	\$ 137,346,538	. 	\$ 179,033,683

		Difference			
		Between		Difference	
		Expected		Between	
	Proportionate	and Actual	Changes in	Projected and	Total Deferred
City	Share (%)	Experience	Assumptions	Actual Earnings	Inflows
Ames	2.68%	\$ (116,010)	\$ (25,480)	\$ (535,789)	\$ (677,279)
Ankeny	2.56%	(111,048)	(24,390)	(512,875)	(648,314)
Bettendorf	1.87%	(81,179)	(17,830)	(374,924)	(473,933)
Boone	0.54%	(23,450)	(5,150)	(108,303)	(136,903)
Burlington	1.83%	(79,267)	(17,410)	(366,091)	(462,768)
Camanche	0.25%	(10,951)	(2,405)	(50,576)	(63,932)
Carroll	0.29%	(12,670)	(2,783)	(58,518)	(73,971)
Cedar Falls	1.86%	(80,584)	(17,699)	(372,174)	(470,457)
Cedar Rapids	9.15%	(396,521)	(87,090)	(1,831,325)	(2,314,936)
Centerville	0.24%	(10,324)	(2,268)	(47,682)	(60,274)
Charles City	0.31%	(13,623)	(2,992)	(62,919)	(79,534)
Clinton	1.91%	(82,688)	(18,161)	(381,894)	(482,743)
Clive	0.62%	(26,772)	(5,880)	(123,645)	(156,297)
Council Bluffs	5.84%	(252,917)	(55,550)	(1,168,092)	(1,476,559)
Creston	0.29%	(12,370)	(2,717)	(57,132)	(72,219)
Davenport	7.73%	(334,996)	(73,577)	(1,547,174)	(1,955,747)
Decorah	0.29%	(12,381)	(2,719)	(57,179)	(72,279)
Des Moines	18.22%	(789,535)	(173,412)	(3,646,444)	(4,609,391)
Dewitt	0.21%	(9,148)	(2,009)	(42,249)	(53,406)
Dubuque	4.73%	(204,987)	(45,023)	(946,730)	(1,196,740)
Estherville	0.23%	(9,768)	(2,145)	(45,112)	(57,025)
Evansdale	0.13%	(5,561)	(1,221)	(25,681)	(32,463)
Fairfield	0.28%	(11,924)	(2,619)	(55,071)	(69,614)
Fort Dodge	1.62%	(70,082)	(15,393)	(323,672)	(409,147)
Fort Madison	0.67%	(29,231)	(6,420)	(135,003)	(170,654)
Grinnell	0.38%	(16,518)	(3,628)	(76,289)	(96,435)
Indianola	0.48%	(20,822)	(4,573)	(96,167)	(121,563)
Iowa City	3.62%	(156,887)	(34,458)	(724,581)	(915,926)
Keokuk	0.74%	(32,105)	(7,051)	(148,276)	(187,432)
Knoxville	0.25%	(10,677)	(2,345)	(49,310)	(62,332)
Lemars	0.34%	(14,522)	(3,190)	(67,072)	(84,784)
Maquoketa	0.21%	(8,974)	(1,971)	(41,445)	(52,390)
Marion	1.99%	(86,185)	(18,929)	(398,042)	(503,156)
Marshalltown	1.43%	(61,785)	(13,570)	(285,353)	(360,708)
Mason City	1.88%	(81,649)	(17,933)	(377,094)	(476,676)
Muscatine	1.73%	(74,761)	(16,420)	(345,283)	(436,464)
Newton	1.03%	(44,786)	(9,837)	(206,844)	(261,467)
Oelwein	0.21%	(8,960)	(1,968)	(41,380)	(52,308)
Oskaloosa	0.46%	(20,106)	(4,416)	(92,861)	(117,383)
Ottumwa	1.51%	(65,533)	(14,393)	(302,661)	(382,587)
Pella	0.36%	(15,618)	(3,430)	(72,131)	(91,179)
Sioux City	6.06%	(262,624)	(57,682)	(1,212,923)	(1,533,229)
Spencer	0.50%	(21,622)	(4,749)	(99,863)	(126,234)
Storm Lake	0.38%	(16,337)	(3,588)	(75,450)	(95,375)
Urbandale	2.32%	(100,482)	(22,070)	(464,074)	(586,628)
Waterloo	5.47%	(237,050)	(52,065)	(1,094,809)	(1,383,924)
Waverly	0.35%	(15,121)	(3,321)	(69,835)	(88,277)
Webster City	0.28%	(12,069)	(2,651)	(55,741)	(70,461)
West Des Moines	3.68%	(159,436)	(35,018)	(736,354)	(930,808)
Total	100.00%	\$ (4,332,616)	\$ (951,599)	\$ (20,010,094)	\$ (25,294,309)

	Proportionate	Share of
City	Share (%)	Pension Expense
Ames	2.68%	\$ 3,966,904
Ankeny	2.56%	3,797,246
Bettendorf	1.87%	
		2,775,878
Boone	0.54%	801,862
Burlington Camanche	1.83%	2,710,485
Carroll	0.25%	374,459
Cedar Falls	0.29%	433,259 2,755,517
	1.86%	
Cedar Rapids	9.15% 0.24%	13,558,860
Centerville Charles City		353,028
Charles City	0.31%	465,839
Clinton	1.91%	2,827,489
Clive	0.62%	915,452
Council Bluffs	5.84%	8,648,379
Creston	0.29%	422,997
Davenport	7.73%	11,455,046
Decorah	0.29%	423,348
Des Moines	18.22%	26,997,718
Dewitt	0.21%	312,805
Dubuque	4.73%	7,009,444
Estherville	0.23%	334,001
Evansdale	0.13%	190,141
Fairfield	0.28%	407,740
Fort Dodge	1.62%	2,396,418
Fort Madison	0.67%	999,541
Grinnell	0.38%	564,832
Indianola	0.48%	712,007
Iowa City	3.62%	5,364,692
Keokuk	0.74%	1,097,813
Knoxville	0.25%	365,087
Lemars	0.34%	496,588
Maquoketa	0.21%	306,852
Marion	1.99%	2,947,042
Marshalltown	1.43%	2,112,711
Mason City	1.88%	2,791,949
Muscatine	1.73%	2,556,421
Newton	1.03%	1,531,440
Oelwein	0.21%	306,375
Oskaloosa	0.46%	687,529
Ottumwa	1.51%	2,240,860
Pella	0.36%	534,050
Sioux City	6.06%	8,980,303
Spencer	0.50%	739,369
Storm Lake	0.38%	558,622
Urbandale	2.32%	3,435,946
Waterloo	5.47%	8,105,804
Waverly	0.35%	517,051
Webster City	0.28%	412,694
West Des Moines	3.68%	5,451,855
Total	100.00%	\$ 148,151,748

June 30, 2020

Plan Administration

The Municipal Fire and Police Retirement System of Iowa (System) was created by the Iowa General Assembly in 1990 to establish a statewide retirement system for fire and police personnel covered by the provisions of Iowa Code Chapter 411. The programs of the System include the payment of pension benefits for service retirement, ordinary disability retirement, accidental disability retirement, survivors of deceased members and the refund of contributions upon withdrawal by a terminated member.

The System is managed by a Board of Trustees established by Iowa Code Chapter 411. The Board of Trustees represents the police officer and firefighter memberships, Cities, and citizens of Iowa, while the Iowa General Assembly provides the System with direction and oversight.

Basis of Accounting

Contributions for employers and net pension liability are recognized on an accrual basis of accounting.

Use of Estimates in the Preparation of the Schedules

The preparation of the Schedules in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain amounts and disclosures. Actual results could differ from those estimates.

Plan Membership

As of July 1, 2020, System membership consisted of the following:

Inactive members (or beneficiaries) currently receiving benefits	4,190
Inactive members entitled to but not yet receiving benefits	375
Active members	4,084
Total	8,649

Plan Description

The System's membership is mandatory for firefighters and police officers of the Cities. Members of the System are provided with pensions through a cost-sharing multiple employer defined benefit pension plan administered by the System. The System issues a stand-alone financial report which is available to the public by mail at 7155 Lake Drive, Suite 201, West Des Moines, IA 50266 or at www.MFPRSI.org.

System benefits are established under Iowa Code chapter 411 and the administrative rules thereunder. Chapter 411 and the administrative rules are the official plan documents. The following brief description is provided for general informational purposes only. Refer to the plan documents for more information.

Pension Benefits

Participating members are entitled to the benefit provisions in effect on the member's date of termination. The following is a summary of System benefit provisions as of June 30, 2020:

Retirement - Members with four or more years of service are entitled to pension benefits beginning at age 55. Full service retirement benefits are granted to members with 22 years of service, while partial benefits are available to those members with 4 to 22 years of service based on the ratio of years completed to years required (22 years). Members with less than four years of service are entitled to a refund of their contribution only, with interest for the period of employment.

Benefits are calculated based upon the member's highest three years of compensation. The average of these 3 years becomes the member's average final compensation. The base benefit is 66 percent of the member's average final compensation. Additional benefits are available to members who perform more than 22 years of service (2 percent for each additional year of service, up to a maximum of eight years). Survivor benefits are available to the beneficiary of a retired member according to the provisions of the benefit option chosen plus an additional benefit for each child. Survivor benefits are subject to a minimum benefit for those members who chose the basic benefit with a 50 percent surviving spouse benefit.

Disability and Death - Disability coverage is broken down into two types, accidental and ordinary. Accidental disability is defined as permanent disability incurred in the line of duty, with benefits equivalent to the greater of 60 percent of the member's average final compensation or the member's service retirement benefit calculation amount. Ordinary disability occurs outside the call of duty and pays benefits equivalent to the greater of 50 percent of the member's average final compensation, for those with 5 or more years of service, or the member's service retirement benefit calculation amount, and 25 percent of average final compensation for those with less than 5 years of service.

Death benefits are similar to disability benefits. Benefits for accidental death are 50 percent of the average final compensation of the member plus an additional amount for each child, or the provisions for ordinary death. Ordinary death benefits consist of a pension equal to 40 percent of the average final compensation of the member plus an additional amount for each child, or a lump-sum distribution to the designated beneficiary equal to 50 percent of the previous year's earnable compensation of the member or equal to the amount of the member's total contributions plus interest.

Benefits are increased (escalated) annually in accordance with Iowa Code Chapter 411.6 which states a standard formula for the increases.

Traumatic Personal Injury - The surviving spouse or dependents of an active member who dies due to a traumatic personal injury incurred in the line of duty receives a \$100,000 lump-sum payment.

Deferred Retirement Option Program (DROP) - Active members, at least 55 years of age, with 22 or more years of service have the option to participate in the DROP Program. The DROP is an arrangement whereby a member who is otherwise eligible to retire and commence benefits opts to continue to work. A member can elect a 3, 4, or 5 year DROP period. By electing to participate in DROP the member is signing a contract indicating the member will retire at the end of the selected DROP period. During the DROP period the member's retirement benefit is frozen and a DROP benefit is credited to a DROP account established for the member. Assuming the member completes the DROP period, the DROP benefit is equal to 52% of the member's retirement benefit at the member's earliest date eligible and 100% if the member delays enrollment for 24 months. At the member's actual date of retirement, the member's DROP account will be distributed to the member in the form of a lump sum or rollover to an eligible plan.

Contributions

Member - Member contribution rates are set by state statute. In accordance with Iowa Code Chapter 411 as modified by act of the 1994 General Assembly, to establish compliance with the Federal Older Workers Benefit Protections Act, the contribution rate was 9.40% of earnable compensation for the year ended June 30, 2020.

Employer - Employer contribution rates are based upon an actuarially determined normal contribution rate and set by state statute. The required actuarially determined contributions are calculated on the basis of the entry age normal method as adopted by the Board of Trustees as permitted under Chapter 411 of the Code of Iowa. The normal contribution rate is provided by state statute to be the actuarial liabilities of the plan less current plan assets, with such total divided by 1 percent of the actuarially determined present value of prospective future compensation of all members, further reduced by member contributions and state appropriations. Under the Code of Iowa the employer's contribution rate cannot be less than 17.00% of earnable compensation. The contribution rate was 24.41% for the year ended June 30, 2020.

State Appropriations - State appropriations are approved by the state legislature and may further reduce the employer's contribution rate, but not below the minimum statutory contribution rate of 17.00% of earnable compensation. The State therefore is considered to be a nonemployer contributing entity. There were no state appropriations approve by the state legislature for fiscal year ended June 30, 2020.

The allocation amongst all Cities of the contributions to the System for the period ended June 30, 2020 was as follows:

	Proportionate	Actuarially Determined Contribution	Contributions in Relation	Contribution Deficiency/	Covered	Contributions as a % of Covered
City	Share (%)	(ADC)	to the ADC	(Excess)	Payroll *	Payroll
Ames	2.68%	\$ 2,076,514	\$ 2,076,514	\$ -	\$ 8,506,982	24.41%
Ankeny	2.56%	1,987,705	1,987,705	-	8,143,154	24.41%
Bettendorf	1.87%	1,453,060	1,453,060	-	5,952,840	24.41%
Boone	0.54%	419,742	419,742	-	1,719,585	24.41%
Burlington	1.83%	1,418,830	1,418,830	-	5,812,606	24.41%
Camanche	0.25%	196,015	196,015	-	803,024	24.41%
Carroll	0.29%	226,793	226,793	-	929,120	24.41%
Cedar Falls	1.86%	1,442,402	1,442,402	=	5,909,177	24.41%
Cedar Rapids	9.15%	7,097,516	7,097,516	-	29,076,829	24.41%
Centerville	0.24%	184,796	184,796	-	757,064	24.41%
Charles City	0.31%	243,848	243,848	=	998,988	24.41%
Clinton	1.91%	1,480,077	1,480,077	-	6,063,521	24.41%
Clive	0.62%	479,202	479,202	=	1,963,177	24.41%
Council Bluffs	5.84%	4,527,078	4,527,078	=	18,546,356	24.41%
Creston	0.29%	221,422	221,422	-	907,112	24.41%
Davenport	7.73%	5,996,254	5,996,254	-	24,565,222	24.41%
Decorah	0.29%	221,606	221,606	-	907,865	24.41%
Des Moines	18.22%	14,132,213	14,132,213	-	57,896,306	24.41%
Dewitt	0.21%	163,741	163,741	-	670,806	24.41%
Dubuque	4.73%	3,669,161	3,669,161	-	15,031,678	24.41%
Estherville	0.23%	174,836	174,836	-	716,261	24.41%
Evansdale	0.13%	99,531	99,531	-	407,755	24.41%
Fairfield	0.28%	213,435	213,435	-	874,395	24.41%
Fort Dodge	1.62%	1,254,428	1,254,428	-	5,139,093	24.41%
Fort Madison	0.67%	523,219	523,219	-	2,143,505	24.41%
Grinnell	0.38%	295,667	295,667	-	1,211,275	24.41%
Indianola	0.48%	372,707	372,707	-	1,526,891	24.41%
Iowa City	3.62%	2,808,200	2,808,200	-	11,504,524	24.41%
Keokuk	0.74%	574,661	574,661	-	2,354,249	24.41%
Knoxville	0.25%	191,108	191,108	-	782,926	24.41%
Lemars	0.34%	259,944	259,944	-	1,064,928	24.41%
Maguoketa	0.21%	160,625	160,625	-	658,041	24.41%
Marion	1.99%	1,542,658	1,542,658	=	6,319,900	24.41%
Marshalltown	1.43%	1,105,918	1,105,918	-	4,530,685	24.41%
Mason City	1.88%	1,461,473	1,461,473	=	5,987,305	24.41%
Muscatine	1.73%	1,338,183	1,338,183	-	5,482,216	24.41%
Newton	1.03%	801,647	801,647	-	3,284,157	24.41%
Oelwein	0.21%	160,375	160,375	-	657,018	24.41%
Oskaloosa	0.46%	359,894	359,894	_	1,474,399	24.41%
Ottumwa	1.51%	1,173,000	1,173,000	-	4,805,501	24.41%
Pella	0.36%	279,554	279,554	_	1,145,264	24.41%
Sioux City	6.06%	4,700,826	4,700,826	_	19,258,162	24.41%
Spencer	0.50%	387,030	387,030	_	1,585,569	24.41%
Storm Lake	0.38%	292,417	292,417	_	1,197,960	24.41%
Urbandale	2.32%	1,798,579	1,798,579	_	7,368,349	24.41%
Waterloo	5.47%	4,243,061	4,243,061	_	17,382,810	24.41%
Waterloo	0.35%	270,655	270,655	_	1,108,810	24.41%
Webster City	0.28%	216,029	216,029	_	885,019	24.41%
West Des Moines	3.68%	2,853,827	2,853,827		11,691,445	24.41%
Total	100.00%	\$ 77,551,461	\$ 77,551,461	\$ -	\$ 317,709,826	

^{*} Represents reported covered payroll. Amount reported is based on pensionable payroll and not total payroll. Please consult your auditor when presenting covered payroll in your reports.

Net Pension Liability

The components of the net pension liability of the System at June 30, 2020, were as follows:

Total Pension Liability	\$ 3,390,348,728
Plan Fiduciary Net Position	(2,592,748,429)
Net Pension Liability	\$ 797,600,299
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	76.47%
The following schedule presents the changes in net pension liability for fiscal year ended Ju	une 30, 2020.
Total Pension Liability - Beginning of Year Service Cost Interest Difference between Expected and Actual Experience Benefit Payments, Including Refunds	\$ 3,269,051,818 55,133,707 242,467,141 9,638,175 (185,942,113)
Total Pension Liability - End of Year	3,390,348,728
Plan Fiduciary Net Position - Beginning of Year Contributions - Employer and State Contributions - Member Net Investment Income Benefit Payments, Including Refunds Administrative Expenses Other	2,613,125,249 77,551,461 29,808,835 60,250,246 (185,942,113) (1,887,579) (157,670)
Plan Fiduciary Net Position - End of Year	2,592,748,429
Net Pension Liability - End of Year	\$ 797,600,299
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	76.47%
Covered Payroll*	\$ 317,709,825
Net Pension Liability as a Percentage of the Covered Payroll	251.05%

^{*}Represents reported covered payroll. Amount reported is based on pensionable payroll and not total payroll. Please consult your auditor when presenting covered payroll in your reports.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability, calculated using the current discount rate of 7.50%, as well as the net pension liability calculated using a discount rate that is 1-percentage point lower (6.50%) or 1-percentage point higher (8.50%) than the current rate:

		Current Discount	
	1% Decrease	Rate	1% Increase
	6.50%	7.50%	8.50%
Total Pension Liability Plan Fiduciary Net Position	\$ 3,816,112,066	\$ 3,390,348,728	\$ 3,037,681,358
	(2,592,748,429)	(2,592,748,429)	(2,592,748,429)
Net Pension Liability	\$ 1,223,363,637	\$ 797,600,299	\$ 444,932,929

The allocation amongst all Cities of the sensitivity in Net Pension Liability of the System at June 30, 2020, was as follows:

		1%			Current	1%
	Proportionate		Decrease	Di	scount Rate	Increase
City	Share (%)		6.50%		7.50%	8.50%
Ames	2.68%	\$	32,756,724	\$	21,356,506	\$ 11,913,502
Ankeny	2.56%		31,355,776		20,443,126	11,403,982
Bettendorf	1.87%		22,921,822		14,944,413	8,336,584
Boone	0.54%		6,621,382		4,316,964	2,408,173
Burlington	1.83%		22,381,841		14,592,361	8,140,195
Camanche	0.25%		3,092,101		2,015,967	1,124,586
Carroll	0.29%		3,577,641		2,332,526	1,301,175
Cedar Falls	1.86%		22,753,695		14,834,799	8,275,437
Cedar Rapids	9.15%		111,962,338		72,996,443	40,720,297
Centerville	0.24%		2,915,129		1,900,586	1,060,222
Charles City	0.31%		3,846,671		2,507,927	1,399,020
Clinton	1.91%		23,348,005		15,222,273	8,491,585
Clive	0.62%		7,559,347		4,928,492	2,749,307
Council Bluffs	5.84%		71,414,024		46,560,029	25,973,022
Creston	0.29%		3,492,899		2,277,276	1,270,355
Davenport	7.73%		94,590,085		61,670,200	34,402,072
Decorah	0.29%		3,495,798		2,279,167	1,271,409
Des Moines	18.22%		222,933,729		145,346,816	81,080,188
Dewitt	0.21%		2,582,986		1,684,036	939,422
Dubuque	4.73%		57,880,514		37,736,544	21,050,934
Estherville	0.23%		2,758,012		1,798,150	1,003,079
Evansdale	0.13%		1,570,089		1,023,656	571,036
Fairfield	0.28%		3,366,917		2,195,140	1,224,536
Fort Dodge	1.62%		19,788,433		12,901,528	7,196,981
Fort Madison	0.67%		8,253,716		5,381,202	3,001,847
Grinnell	0.38%		4,664,098		3,040,867	1,696,316
Indianola	0.48%		5,879,400		3,833,211	2,138,317
Iowa City	3.62%		44,298,964		28,881,737	16,111,373

City	Proportionate Share (%)	1% Decrease 6.50%	Current Discount Rate 7.50%	1% Increase 8.50%
Keokuk	0.74%	9,065,198	5,910,266	3,296,980
Knoxville	0.25%	3,014,711	1,965,510	1,096,439
Lemars	0.34%	4,100,580	2,673,468	1,491,366
Maquoketa	0.21%	2,533,831	1,651,990	921,545
Marion	1.99%	24,335,211	15,865,905	8,850,628
Marshalltown	1.43%	17,445,716	11,374,139	6,344,944
Mason City	1.88%	23,054,532	15,030,937	8,384,850
Muscatine	1.73%	21,109,653	13,762,928	7,677,505
Newton	1.03%	12,645,873	8,244,770	4,599,258
Oelwein	0.21%	2,529,892	1,649,421	920,112
Oskaloosa	0.46%	5,677,276	3,701,432	2,064,805
Ottumwa	1.51%	18,503,913	12,064,055	6,729,806
Pella	0.36%	4,409,920	2,875,150	1,603,872
Sioux City	6.06%	74,154,884	48,346,997	26,969,863
Spencer	0.50%	6,105,343	3,980,520	2,220,491
Storm Lake	0.38%	4,612,827	3,007,440	1,677,669
Urbandale	2.32%	28,372,335	18,498,002	10,318,916
Waterloo	5.47%	66,933,711	43,638,986	24,343,549
Waverly	0.35%	4,269,551	2,783,633	1,552,820
Webster City	0.28%	3,407,826	2,221,811	1,239,414
West Des Moines	3.68%	45,018,718	29,350,997	16,373,145
Total	100.00%	\$ 1,223,363,637	\$ 797,600,299	\$ 444,932,929

Deferred Inflows and Outflows of Resources

As of June 30, 2020, the deferred inflows and outflows of resources are as follows:

	Deferred Inflows of Resources	Deferred Outflows of Resources		
Differences between expected and actual experience Changes of assumptions Net difference between projected and actual earnings Contributions made subsequent to measurement date*	\$ (4,332,616) (951,599) (20,010,094) TBD	\$ 21,929,665 19,757,480 137,346,538 TBD		
Total	\$ (25,294,309)	\$ 179,033,683		

^{*}Contributions made subsequent to the measurement date will not be known until after the end of the reporting period.

Other amounts currently reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in future years' pension expense as follows:

	Annual
Years Ending June 30,	<u>Recognition</u>
2021	\$ 34,018,683
2022	47,232,575
2023	42,655,269
2024	29,287,292
2025	545.555

The allocation amongst all Cities of amounts currently reported as Deferred (Inflows)/Outflows of the System to be recognized in Pension Expense was as follows:

	Proportionate	Year Ending June 30,				
City	Share (%)	2021	2022	2023	2024	2025
Ames	2.68%	\$ 910,883	\$ 1,264,697	\$ 1,142,135	\$ 784,195	\$ 14,608
Ankeny	2.56%	871,926	1,210,608	1,093,288	750,656	13,983
Bettendorf	1.87%	637,399	884,984	799,220	548,748	10,222
Boone	0.54%	184,124	255,643	230,869	158,516	2,953
Burlington	1.83%	622,383	864,136	780,392	535,821	9,981
Camanche	0.25%	85,984	119,382	107,813	74,025	1,379
Carroll	0.29%	99,485	138,128	124,742	85,649	1,595
Cedar Falls	1.86%	632,723	878,492	793,358	544,723	10,147
Cedar Rapids	9.15%	3,113,393	4,322,729	3,903,814	2,680,375	49,929
Centerville	0.24%	81,062	112,550	101,642	69,788	1,300
Charles City	0.31%	106,966	148,515	134,123	92,089	1,715
Clinton	1.91%	649,250	901,438	814,080	558,951	10,412
Clive	0.62%	210,207	291,857	263,573	180,971	3,371
Council Bluffs	5.84%	1,985,845	2,757,208	2,490,007	1,709,650	31,847
Creston	0.29%	97,129	134,857	121,788	83,620	1,558
Davenport	7.73%	2,630,314	3,652,008	3,298,092	2,264,484	42,182
Decorah	0.29%	97,209	134,969	121,889	83,689	1,559
Des Moines	18.22%	6,199,229	8,607,199	7,773,076	5,337,023	99,414
Dewitt	0.21%	71,826	99,726	90,061	61,837	1,152
Dubuque	4.73%	1,609,512	2,234,696	2,018,132	1,385,658	25,812
Estherville	0.23%	76,693	106,483	96,164	66,027	1,230
Evansdale	0.13%	43,660	60,619	54,745	37,588	700
Fairfield	0.28%	93,626	129,993	117,395	80,604	1,501
Fort Dodge	1.62%	550,267	764,007	689,967	473,735	8,825
Fort Madison	0.67%	229,515	318,666	287,784	197,594	3,681
Grinnell	0.38%	129,697	180,075	162,624	111,658	2,080
Indianola	0.48%	163,491	226,996	204,998	140,753	2,622
Iowa City	3.62%	1,231,843	1,710,329	1,544,581	1,060,516	19,755
Keokuk	0.74%	252,080	349,996	316,078	217,021	4,043
Knoxville	0.25%	83,832	116,394	105,115	72,172	1,344
Lemars	0.34%	114,027	158,318	142,976	98,168	1,829
Maquoketa	0.21%	70,459	97,828	88,348	60,660	1,130
Marion	1.99%	676,701	939,553	848,501	582,584	10,852
Marshalltown	1.43%	485,122	673,558	608,283	417,650	7,780

	Proportionate	Year Ending June 30,				
City	Share (%)	2021	2022	2023	2024	2025
Mason City	1.88%	641,089	890,107	803,847	551,925	10,281
Muscatine	1.73%	587,007	815,018	736,035	505,365	9,414
Newton	1.03%	351,650	488,242	440,926	302,742	5,639
Oelwein	0.21%	70,350	97,676	88,210	60,566	1,128
Oskaloosa	0.46%	157,871	219,193	197,951	135,914	2,532
Ottumwa	1.51%	514,548	714,413	645,180	442,983	8,252
Pella	0.36%	122,629	170,262	153,762	105,573	1,967
Sioux City	6.06%	2,062,062	2,863,029	2,585,573	1,775,266	33,069
Spencer	0.50%	169,774	235,720	212,876	146,162	2,723
Storm Lake	0.38%	128,271	178,096	160,836	110,431	2,057
Urbandale	2.32%	788,964	1,095,421	989,264	679,233	12,653
Waterloo	5.47%	1,861,259	2,584,229	2,333,791	1,602,391	29,849
Waverly	0.35%	118,726	164,842	148,867	102,213	1,904
Webster City	0.28%	94,763	131,572	118,821	81,583	1,520
West Des Moines	3.68%	1,251,858	1,738,118	1,569,677	1,077,747	20,076
Total	100.00%	\$ 34,018,683	\$ 47,232,575	\$ 42,655,269	\$ 29,287,292	\$ 545,555

Expected Remaining Service Lives

Gains and losses which are amortized over future years are referred to as deferred inflows or gains, and deferred outflows or losses. Investment gains and losses are recognized over a closed five year period. Economic and demographic gains and losses and changes in the total pension liability due to changes in assumptions are recognized over a closed period equal to the average expected remaining service lives of all covered active and inactive members, determined as of the beginning of the measurement period. The amortization period is calculated as the weighted average of expected remaining service lives assuming zero years for all inactive members.

The amortization period for the June 30, 2019 to June 30, 2020, measurement period was determined as follows:

		Expected Remaining Service
As of June 30, 2019	<u>Members</u>	Lives
Active Members Inactive Members	4,086 4,522	11.266 0.000
Weighted Average Rounded to the Nearest Tenth	4,322 N/A	5.300

Pension Expense	June 30, 2020
Service Cost	\$ 55,133,707
Interest on Total Pension Liability	3 33,133,707 242,467,141
•	1,887,579
Administrative Expenses Other Changes in Fiduciary Net Position	157.670
Member Contributions	- ,
	(29,808,835)
Expected Investment Return Net of Investment Expenses	(193,015,505)
Recognition of Deferred (Inflows)/Outflows of Resources	0.400.010
Economic/Demographic (Gains)/Losses	8,489,918
Assumption Changes	11,272,204
Investment (Gains)/Losses	51,567,869
Pension Expense	<u>\$ 148,151,748</u>

Actuarial Assumptions

The total pension liability in the June 30, 2020, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation 3.00 percent

Salary Increases 3.75 to 15.11 percent including inflation

Investment Rate of Return 7.50 percent, net of pension plan investment expense

The actuarial assumptions used in the June 30, 2020, valuation were based on the results of an actuarial experience study for the period of July 1, 2007 to June 30, 2017. There were no significant changes of benefit terms.

Mortality rates as of June 30, 2020, were based on RP 2014 Blue Collar Healthy Annuitant table with males set-forward zero years, females set forward two years and disabled set-forward three years (male only rates), with generational projection of future mortality improvement with 50% of Scale BB beginning in 2017.

The investment policy and decisions are governed by the Board of Trustees. The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2018 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Large Cap	7.49%
Small Cap	8.1%
International Large Cap	7.2%
Emerging Markets	7.9%
Global infrastructure	7.5%
Private Non-Core Real Estate	11.5%
Private Credit	6.4%
Private Equity	10.8%
Core Plus Fixed Income	4.0%
Private Core Real Estate	7.2%

Discount rate – The discount rate used to measure the total pension liability was 7.50 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that City contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.