



# Illinois Municipal Retirement Fund

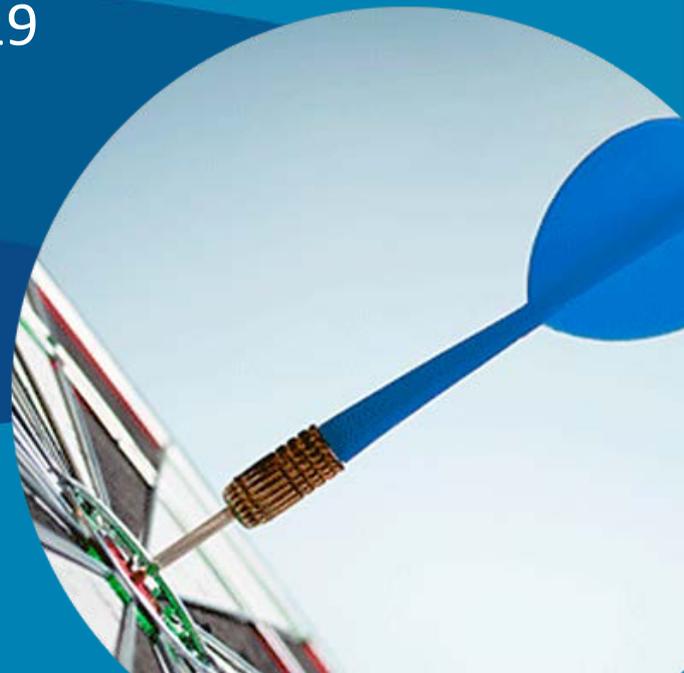
Annual Actuarial Valuation December 31, 2019

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# PURPOSE



1. Calculate employer rates for 3,361 plans for the 2021 calendar year
2. Measure financial position and funding progress
3. Explain changes in financial position that occurred during the year

# IMRF Population

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	<u>2019</u>	<u>2018</u>
Active Members		
· Tier 1	96,333	103,159
· Tier 2	81,462	73,364
· Total	<u>177,795</u>	<u>176,523</u>
Retirees	136,707	131,963
Inactive Members	<u>146,866</u>	<u>141,817</u>
Total	<u>461,368</u>	<u>450,303</u>

# IMRF Plans

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<b>Employer Type</b>	<b>2019</b>	<b>2018</b>
School Districts	850	850
Townships	496	495
Villages	483	480
Cities	313	312
Counties (Regular, SLEP & ECO)	269	269
Library Districts	233	230
Park Districts	204	202
All Other	513	504
<b>Total</b>	<b>3,361</b>	<b>3,342</b>

# Value of Assets (\$ Millions)

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	<b>2019</b>	<b>2018</b>
Funding Value (FV)	\$42,936	\$40,830
Market Value (MV)	\$44,923	\$38,756
Ratio	95.6%	105.4%
Difference between FV and MV	\$ 1,987	\$(2,074)
Market Value Rate of Return	19.2%	(4.1)%
Funding Value Rate of Return	8.2%	6.5%

# Development of Average Contribution Rates Applicable to Calendar Year 2021

(Results as of December 31, 2019)

	% of Active Member Pays		
	Regular	SLEP	ECO
Tier 1 Employer Normal Cost	6.89 %	13.23 %	14.21 %
Tier 2 Employer Normal Cost	4.03 %	8.51 %	14.21 %
Average Employer Contributions for Normal Cost*			
Retirement	5.80 %	11.60 %	13.89 %
\$3,000 Lump Sum Death Benefit	0.03 %	0.02 %	0.04 %
Total & Permanent Disability Benefit	0.03 %	0.10 %	0.28 %
Total Normal Cost	5.86 %	11.72 %	14.21 %
Lump Sum Death-in-Service Benefits	0.15 %	0.16 %	0.19 %
Temporary Disability	0.09 %	0.09 %	0.09 %
13 <sup>th</sup> Payments	0.62 %	0.62 %	0.62 %
Unfunded (Overfunded) Liabilities (22/10 years)	3.74 %	9.03 %	56.57 %
Early Retirement Incentive Liabilities	0.16 %	0.09 %	0.00 %
SLEP Supplemental Liabilities	0.00 %	1.99 %	0.00 %
<b>Total Average Employer Rate</b>	<b>10.62 %</b>	<b>23.70 %</b>	<b>71.68 %</b>
Prior Year Averages	10.91 %	24.48 %	72.66 %

\* Blend of Tier 1 and Tier 2 Normal Cost weighted on expected payroll.



Dupage County, Peoria County, and Union School District 46 are subject to individual rating. Their rates are not included in the averages above.

# Reconciliation of Employer Contribution

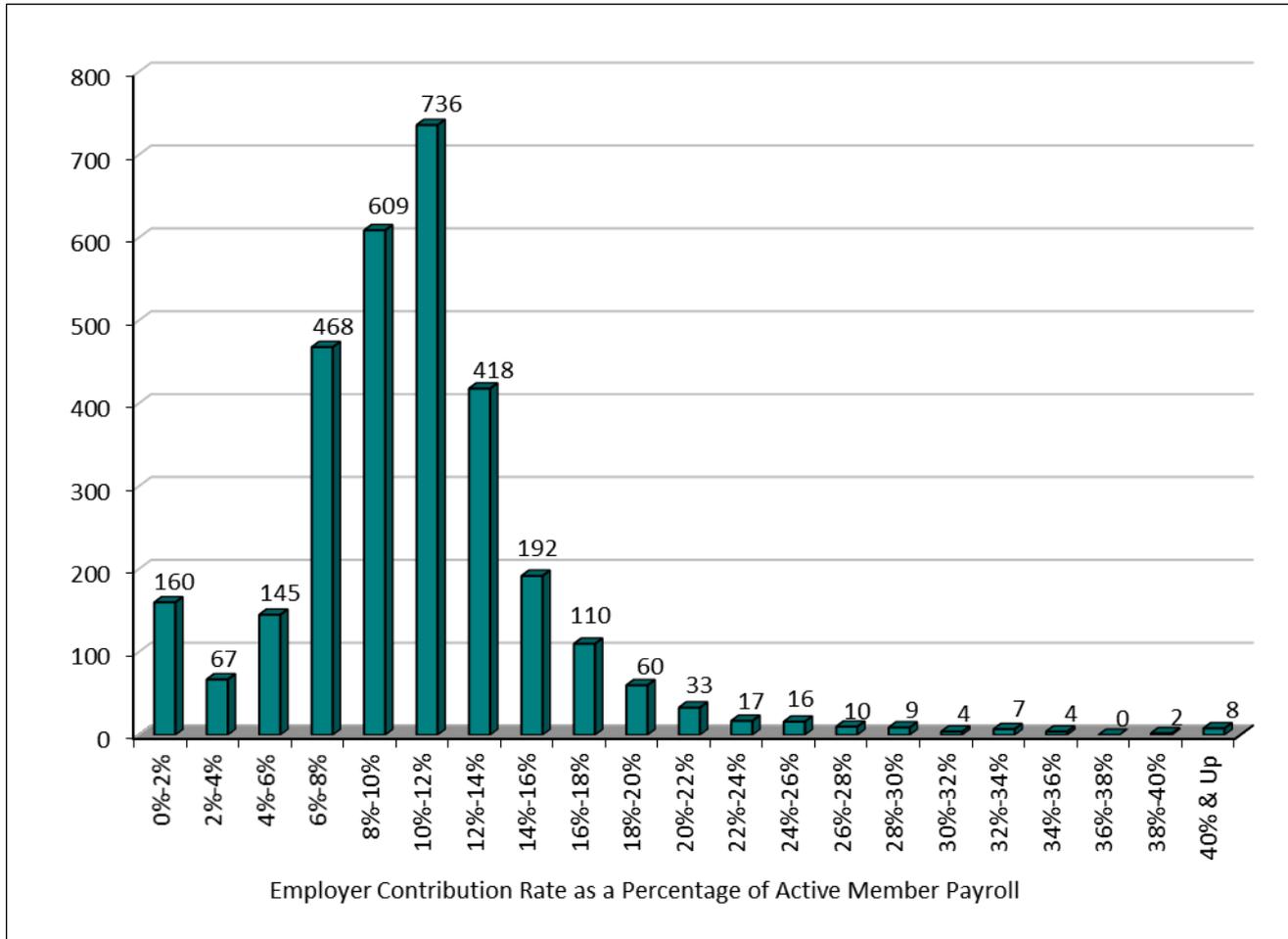
	Regular	SLEP	ECO	Total	Total Last Year
<b>Prior Year</b>	<b>10.91 %</b>	<b>24.48 %</b>	<b>72.66 %</b>	<b>11.56 %</b>	<b>9.62 %</b>
Assumption change	0.00 %	0.00 %	0.00 %	0.00 %	1.63 %
Tier 2 Structure	(0.12)%	(0.23)%	0.00 %	(0.12)%	(0.11)%
Investment Return	(0.33)%	(0.54)%	(2.56)%	(0.34)%	0.37 %
Pay Increases	0.03 %	0.36 %	(0.18)%	0.04 %	0.03 %
Demographic	0.01 %	(0.02)%	0.54 %	0.01 %	0.01 %
Payroll Growth	0.01 %	0.01 %	1.83 %	0.01 %	0.02 %
Death and Disability Rate Change	0.04 %	0.04 %	0.04 %	0.04 %	0.04 %
Other	0.07 %	(0.40)%	(0.65)%	0.03 %	(0.05)%
<b>Current Year</b>	<b>10.62 %</b>	<b>23.70 %</b>	<b>71.68 %</b>	<b>11.23 %</b>	<b>11.56 %</b>

# History of Total Average Employer Contribution Rates

Rate Applies to Calendar Year	Rate Computed as of December 31	Employer Contribution Rate					
		Expressed as % of Active Member Payroll					
		Regular Members		SLEP Members		ECO Members	
		Normal Cost	Average Total Rate	Normal Cost	Average Total Rate	Normal Cost	Average Total Rate
1997	1995	7.27%	9.61%	9.32%	11.43%		
1998	1996 <sup>1</sup>	7.21%	9.64%	10.22%	13.94%		
1999	1997 <sup>3</sup>	7.23%	9.03%	10.62%	14.65%	21.48%	36.14%
2000	1998	7.17%	8.16%	10.42%	14.28%	23.39%	41.38%
2001	1999 <sup>1</sup>	7.41%	6.64%	12.02%	14.86%	23.85%	42.58%
2002	2000	7.62%	5.87%	11.94%	14.13%	18.05%	38.46%
2003	2001	7.66%	6.22%	11.96%	14.04%	17.95%	40.37%
2004	2002 <sup>1</sup>	7.60%	7.82%	12.47%	16.29%	18.18%	44.90%
2005	2003	7.61%	9.25%	12.48%	17.15%	18.07%	42.66%
2006	2004	7.64%	10.04%	12.56%	18.25%	18.01%	44.90%
2007	2005 <sup>1,2</sup>	7.43%	9.72%	11.66%	18.42%	17.52%	41.30%
2008	2006	7.42%	9.47%	11.63%	19.33%	16.96%	41.80%
2009	2007	7.42%	9.27%	11.63%	18.65%	17.08%	42.77%
2010	2008 <sup>1</sup>	7.58%	11.89%	11.97%	21.63%	17.24%	43.57%
2011	2009	7.58%	12.14%	11.97%	21.76%	17.20%	42.72%
2012	2010	7.58%	12.42%	12.01%	22.48%	17.22%	47.15%
2013	2011 <sup>1,2</sup>	7.77%	12.85%	12.74%	23.40%	17.63%	46.85%
2014	2012	7.64%	12.58%	12.61%	23.20%	17.59%	74.52%
2015	2013	7.51%	11.69%	12.42%	22.33%	17.73%	70.37%
2016	2014 <sup>1</sup>	6.84%	11.73%	11.95%	22.71%	16.49%	86.07%
2017	2015	6.71%	11.34%	11.77%	22.39%	16.83%	73.50%
2018	2016	6.61%	11.24%	11.63%	21.49%	16.85%	82.72%
2019	2017 <sup>1</sup>	5.61%	9.06%	10.98%	20.50%	13.21%	66.43%
2020	2018 <sup>1</sup>	5.98%	10.91%	11.94%	24.48%	13.79%	72.66%
<b>2021</b>	<b>2019</b>	<b>5.86%</b>	<b>10.62%</b>	<b>11.72%</b>	<b>23.70%</b>	<b>14.21%</b>	<b>71.68%</b>

1. Assumption change.
2. Benefit change. Regular and SLEP Normal cost are a blend of Tier 1 and Tier 2 normal costs in the 2011 and subsequent valuations.
3. Changed to payroll weighted average method.

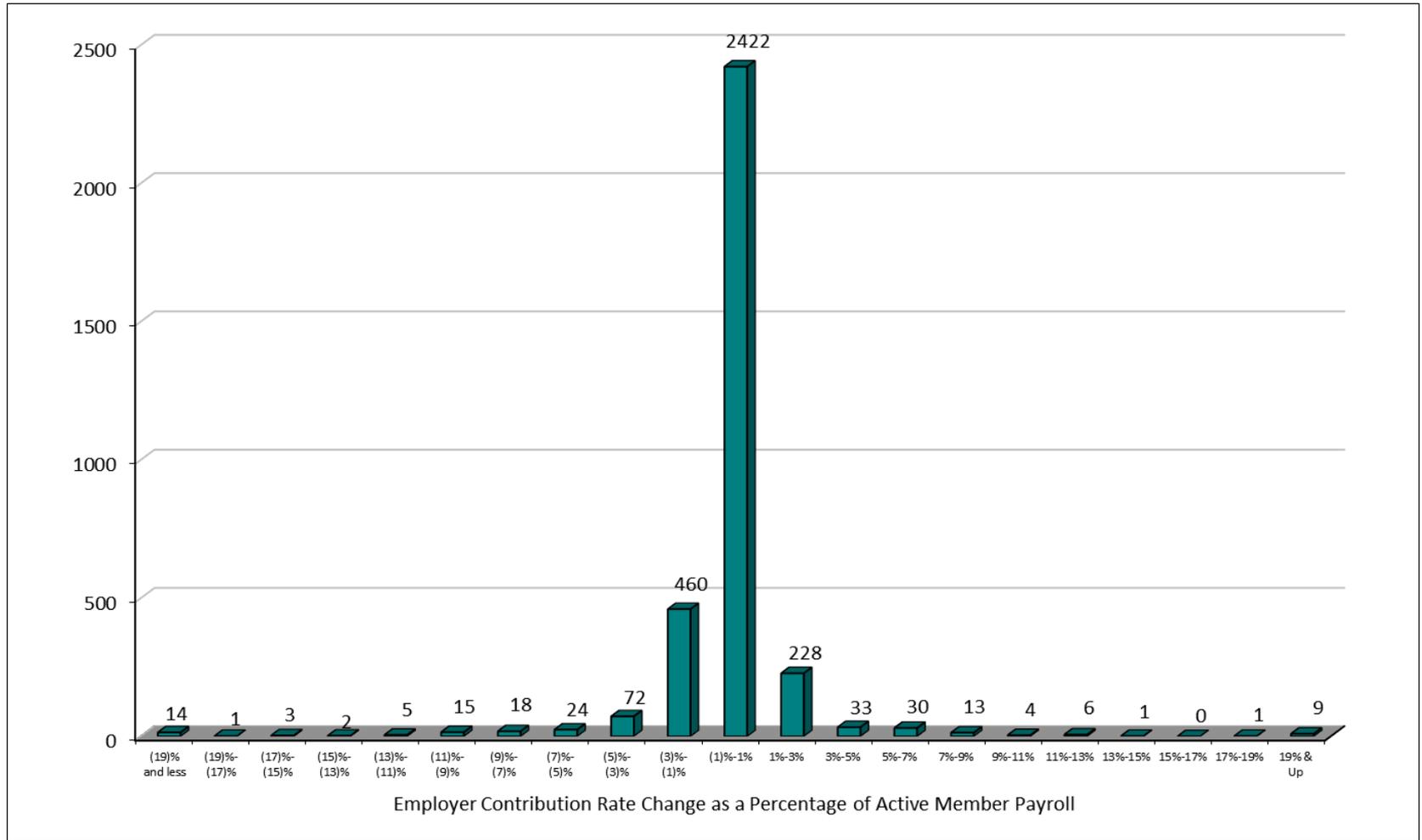
# Contribution Rates for Regular Employer Groups 2019 Actuarial Valuation



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# Contribution Rate Changes for Employer Groups 2019 Actuarial Valuation



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# Average Funding Ratios Comparative Statement

Valuation Date	Funded Ratio AVA Basis	Funded Ratio MV Basis	Unfunded Payroll	Accrued Liability Payroll
1997	95.1%	107.4%	15.5%	312.9%
2010	83.3%	86.3%	76.3%	455.8%
2011*#	83.0%	80.2%	81.7%	481.4%
2012	84.3%	85.9%	78.7%	501.9%
2013	87.6%	96.6%	64.7%	520.4%
2014*	87.3%	93.0%	70.8%	556.5%
2015	88.4%	87.3%	66.1%	570.7%
2016	88.9%	88.1%	65.4%	590.3%
2017*	92.9%	97.9%	42.0%	591.8%
2018*	90.0%	85.5%	61.8%	619.5%
2019	90.7%	94.9%	58.6%	627.5%

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\* Assumption change  
# Benefit change

# Contribution Rate Outlook for 2022

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Will be based on the December 31, 2020 Valuation

Downward Forces:

- Increased Tier 2 Enrollment – About 10 bp
- Phase in of 2019 Investment gain – About 40 bp

Unknown Forces

- Demographic and other effects
- Experience study scheduled for completion later this year
- *Effect of Covid-19 on Investment Return*
  - *Finance department estimates CY 2020 return at -3.2%*
  - *-3.2% return would lead to a 25 bp increase in average contribution rates instead of the 50 bp decrease discussed above*



# Conclusion



1. IMRF experienced a net gain in 2019 mostly due to economic experience.
2. Average 2021 rates will be slightly lower than 2020 rates.
3. 2022 rates will be affected by
  - Continued emergence of Tier 2
  - Continued recognition of 2019 investment gain
  - An experience study
  - Covid-19
4. IMRF is now 90.7% funded (94.9% based on market value); well above national average.

# Disclaimers

- This presentation is intended to be used in conjunction with the actuarial valuation report issued on March 13, 2020. This presentation should not be relied on for any purpose other than the purpose described in the valuation report.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- If you need additional information in order to make an informed decision, please contact the authors.