RESPECT
EMPATHY
ACCOUNTABILITY
ACCURACY
COURAGE
HONESTY

IMRF™

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE YEARS ENDING DECEMBER 31,2018 AND DECEMBER 31, 2017

2018

OAKBROOK,ILLINOIS

FOR THE YEARS ENDED DECEMBER 31, 2018 & DECEMBER 31, 2017

PREPARED BY
The Finance Department of the
Illinois Municipal Retirement Fund

OAK BROOK OFFICE
2211 York Road, Suite 500,
Oak Brook, IL 60523-2337

SPRINGFIELD REGIONAL COUNSELING CENTER
3000 Professional Drive, Suite 101,
Springfield, IL 62703-5934

CONTACT IMRF
1-800-ASK-IMRF (275-4673)
www.imrf.org

Brian Collins
Executive Director

R E A A C H

RESPECT EMPATHY ACCOUNTABILITY ACCURACY COURAGE HONESTY

At IMRF we REAACH for our goals.

These values guide IMRF to REAACH our mission, vision, and goals. They define how we work and shape the expectations we have for our organization. Through our commitment to these values, our members, employers, and stakeholders across Illinois and beyond can feel confident in IMRF as a world-class pension provider.

RESPECT COU
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COURAGE EMPATH

IMRF MISSION STATEMENT

To efficiently and impartially develop, implement, and administer programs that provide income protection to members and their beneficiaries on behalf of participating employers, in a prudent manner.

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BOARD OF TRUSTEES

The IMRF Board of Trustees is responsible for the prudent management of IMRF's retirement assets, and for making sure the money is there to pay the benefits earned by every IMRF member and beneficiary, now and for years to come. The Board carries the responsibility to ensure that IMRF continues to be a well-run, successful pension fund.

An eight-member Board of Trustees governs IMRF:

- Four Executive Trustees elected by participating units of government
- Three Employee Trustees elected by participating IMRF members
- One Annuitant Trustee elected by IMRF annuitants.

The Board meets at least four times a year and may meet monthly as needed. Trustees are elected to five-year terms and serve without compensation. In their five-year term, each Trustee will have the opportunity to hold each officer position at least one time. Trustees are not subjected to term limits.

ALEX WALLACE, JR.
2019 PRESIDENT
EMPLOYEE TRUSTEE

Current term ending Dec. 31, 2020

Oswego Community Unit School District 308

SHARON U. THOMPSON
2019 SECRETARY
ANNUITANT TRUSTEE

Current term ending Dec. 31, 2020

Formerly Lee County

NATALIE COPPER
EMPLOYEE TRUSTEE

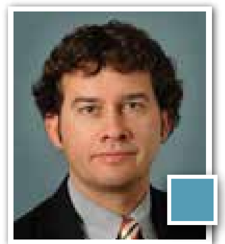
Current term ending Dec. 31, 2019

Dawes School in Evanston

GWEN HENRY
EXECUTIVE TRUSTEE

Current term ending Dec. 31, 2020

DuPage County



DAVID MILLER
2019 VICE PRESIDENT
EXECUTIVE TRUSTEE

Current term ending Dec. 31, 2021

North Shore Water Reclamation District

TOM KUEHNE
EXECUTIVE TRUSTEE

Current term ending Dec. 31, 2022

Village of Arlington Heights

SUE STANISH
EXECUTIVE TRUSTEE

Current term ending Dec. 31, 2023

Naperville Park District

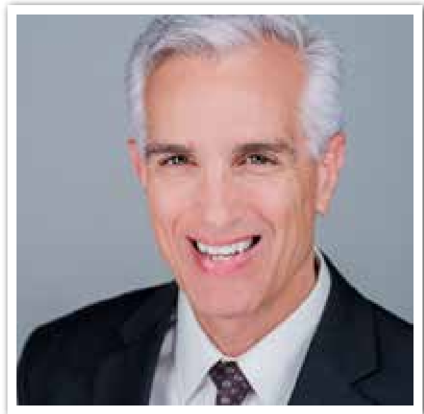
TRUDY WILLIAMS
EMPLOYEE TRUSTEE

Current term ending Dec. 31, 2020

Fulton County State's Attorney's Office

IMRF DIRECTORS

BRIAN COLLINS
Executive Director



DAN DUQUETTE
Deputy Executive Director

DHVANI SHAH
Chief Investment Officer

MARK NANNINI
Chief Financial Officer

KEYLA VIVAS
Chief Information Services Officer

BETH JANICKI CLARK
General Counsel

CARA BANNON
Director of Human Resources

ORGANIZATION CHART

BOARD OF TRUSTEES

CONSULTANTS

- INVESTMENT CONSULTANTS
- INVESTMENT MANAGERS
- MASTER TRUSTEE
- EXTERNAL AUDITOR
- ACTUARY
- MEDICAL CONSULTANTS

STAFF

- **EXECUTIVE DIRECTOR** — *BRIAN COLLINS*
  - **ADMINISTRATIVE ASSISTANT TO THE EXECUTIVE DIRECTOR AND THE BOARD OF TRUSTEES** — *MAUREEN ENRIGHT*
  - **INTERNAL AUDIT MANAGER** — *ELISA JUHASZ*
  - **CHIEF SECURITY OFFICER** — *GLENN ENGSTROM*
  - **DIRECTOR OF HUMAN RESOURCES** — *CARA BANNON*
  - **CHIEF FINANCIAL OFFICER** — *MARK NANNINI*
    - **COMPTROLLER** — *DAVID ADAMSKI*
    - **FINANCIAL RELATIONS MANAGER** — *AUDREY BROWN-RYCE*
  - **DEPUTY EXECUTIVE DIRECTOR** — *DAN DUQUETTE*
    - **BENEFITS MANAGER** — *LARRY DIXON*
    - **MEMBER SERVICES MANAGER** — *CONNIE FOX*
    - **OFFICE SERVICES MANAGER** — *DENISE STREIT*
    - **FIELD SERVICES MANAGER** — *DAWN SEPUTIS*
    - **PERFORMANCE EXCELLENCE MANAGER** — *KATHY GOERDT*
  - **CHIEF INFORMATION SERVICES OFFICER** — *KEYLA VIVAS*
    - **MANAGER, TECHNOLOGY INFRASTRUCTURE** — *BARRY MCGREER*
    - **MANAGER, ENTERPRISE BUSINESS SOLUTIONS** — *PAM ARNDT*
  - **GENERAL COUNSEL** — *BETH JANICKI CLARK*
    - **ASSOCIATE GENERAL COUNSEL** — *VLADIMIR SHULIGA*
    - **LEGISLATIVE LIAISON** — *BONNIE SHADID*
    - **COMMUNICATIONS MANAGER** — *JOHN KRUPA*
  - **CHIEF INVESTMENT OFFICER** — *DHVANI SHAH*

Consultants – Investment Consultants are listed on pages 57-58

Actuary
Gabriel, Roeder,
Smith & Company
Brian B. Murphy, F.S.A.
Mark Buis, F.S.A.
Southfield, Michigan

External Auditors
RSM US LLP
Joseph Evans
William Sarb
Schaumburg, Illinois

Master Trustee
The Northern Trust
Kimberly Miller
Senior Vice President
Chicago, Illinois

Medical Consultants
Marianjoy Medical Group
Wheaton, Illinois
Northwest Psychiatric, S.C.
Buffalo Grove, Illinois

Adjudicators
Ottosen Britz Kelly Gilbert
& Dinolfo, LTD
Susan Davis Brunner, LLC

GFOA AWARDS

IMRF takes great pride in its reputation for transparency. To ensure this reputation continues, IMRF seeks feedback from the Government Finance Officers Association (GFOA) through its various award programs.

In 2017, IMRF received the Certificate of Achievement for Excellence in Financial Reporting for the 38th consecutive year. To achieve the award, IMRF earned outstanding or proficient ratings across all award criteria. This honor showcases IMRF's ongoing commitment to the core values of accuracy and accountability, and to providing the resources required to support members and employers across Illinois.

IMRF will continue to participate in the GFOA awards programs in the future.

Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

Illinois Municipal Retirement Fund

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

December 31, 2017

Christopher P. Morrill

Executive Director/CEO

2211 York Road, Suite 500 Oak Brook, IL 60523-2337 1-800-ASK-IMRF (275-4673)

www.imrf.org

May 17, 2019

Board of Trustees
Illinois Municipal Retirement Fund
Oak Brook, Illinois 60523-2337

FORMAL TRANSMITTAL

We are pleased to submit the Comprehensive Annual Financial Report of the Illinois Municipal Retirement Fund (IMRF) for the year ended December 31, 2018. IMRF's management is responsible for the compilation and accuracy of the financial, investment, actuarial, and statistical information contained in this report. To the best of our knowledge and belief, the enclosed information is accurate in all material respects and is reported in a manner designed to fairly present the fiduciary net position and changes in the fiduciary net position of IMRF.

In developing and evaluating IMRF's accounting system, we consider the adequacy of internal accounting controls. We design these controls to provide reasonable assurance regarding the safekeeping of assets and the reliability of financial records. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

IMRF's Internal Audit department is comprised of seven full-time employees, including an Internal Audit Manager. The Internal Audit department uses a detailed internal audit program that encompasses examination of internal controls, employer compliance, and the Fund's financial transactions and records. IMRF engages an independent accounting firm annually to review and test internal controls over our information systems.

The internal audit function reports directly to the Executive Director and the Board of Trustees. The Board of Trustees has established an Audit Committee, comprised of three Board members. Annually, the Internal Audit Manager presents a report to the Audit Committee covering the results of internal audit procedures performed. The Internal Audit Manager may also meet with the committee on an as-needed basis. Again this year, the Internal Audit Manager reported that IMRF's system of internal controls appears adequate and is being adhered to in the areas tested.

Annually, IMRF completes a SOC 1 Type 2 (System and Organization Controls) attestation report for distribution to employers and their auditors to comply with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*. A SOC 1 Type 2 attestation tests controls related to the accuracy of financial data and the information technology used to produce the financial data. The unmodified opinion in the report gives an employer's auditor confidence that the proper controls are in place and administered on a consistent basis each day of the year and that the financial information is accurate.

The Illinois Pension Code requires an annual audit of the financial statements of the Fund by independent certified public accountants selected by the Board of Trustees and approved by the State Auditor General. IMRF satisfied this requirement and the independent accountants' unmodified audit report on IMRF's 2018 Financial Statements is included in this report. The independent accountants meet at least twice a year with the Audit Committee, once to report on the planned scope of their audit and a second time to report on its results.

Due to the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Post-employment Benefits Other than Pensions*, the financial statements have been restated to reflect a prior period adjustment for fiscal years 2017 and 2016.

PROFILE OF IMRF

IMRF is the administrator of an agent multiple-employer public employee retirement system. The Illinois State Legislature established IMRF in 1939. It began operations in 1941 in order to provide retirement, death, and disability benefits to employees of local units of government in Illinois. Members, employers, and annuitants elect eight trustees who govern IMRF. IMRF is separate and apart from the Illinois state government and is not included in the state's financial statements. IMRF now serves 3,010 different employers, 176,517 participating members, and 133,261 benefit recipients. The Illinois Pension Code requires IMRF to provide its financial statements to participating employers and to any participating member who requests them. These financial statements also appear on IMRF's website, www.imrf.org.

ECONOMIC CONDITIONS

SUMMARY OF FINANCIAL INFORMATION

The following table summarizes additions and deductions to the Fund's fiduciary net position for 2018 and 2017.

	2018 (millions)	2017 (millions)	Dollar Change (millions)	Percent Change
Additions	$(385.7)	$7,015.5	$(7,401.2)	(105.5)%
Deductions	2,275.2	2,117.2	$158.0	7.5%
Net Change	**$(2,660.9)**	**$4,898.3**	**$(7,559.2)**	**(154.3)%**

The decrease in Additions between 2018 and 2017 is primarily due to a $7,479 million decrease in investment income. The 2018 financial markets began the year with continued gains from 2017, boosted by tax cut optimism, low unemployment, and high consumer confidence. These gains and then some were erased in the fourth quarter with concerns over rising interest rates, ongoing trade conflict, and a sharp downturn in Eurozone economic growth. The increase in Deductions is primarily due to increased benefit payment amounts and an increase in the number of benefit recipients from 128,264 to 133,261. For a full understanding of IMRF's financial results, you are encouraged to review the "Financial" section of this report, which includes the Independent Auditor's Report, Management's Discussion and Analysis, Financial Statements, and other supplemental information. Management's Discussion and Analysis provides a narrative introduction, overview, and analysis of the financial statements and complements this transmittal letter.

FUNDING

The funding of IMRF is comprised of three components. The first is member contributions of either 4.5% (Regular plan) or 7.5% (SLEP and ECO plans) of the covered wages established by the Illinois Pension Code. The second portion of the funding is employer contributions. These contributions are based on an individual rate calculated for each employer annually by our actuary. It is based on each employer's member demographics, wages, and experience. The final and most important component of funding the plan is investment income. IMRF has advocated for a 100% funding goal as it, in the long run, is the most cost efficient for our employers. For additional information on investments, see the "Investments" section.

IMRF's actuary uses a five-year smoothed market-related value with a 20% corridor to determine the actuarial value of assets. The smoothing is intended to prevent extreme volatility in employer contribution rates due to short-term fluctuations in the investment markets. For the December 31, 2018, valuation, the aggregate actuarial value of assets was $40.8 billion. The aggregate actuarial liability for all IMRF employers was $45.4 billion. The aggregate actuarial funding ratio is currently 90.0% (a decrease from the 2017 ratio of 92.9%). If the market value of assets is used (i.e., no actuarial smoothing), the aggregate funding ratio is 85.4% as of December 31, 2018, a decrease from 98.2% as of December 31, 2017. The reason for the difference between the two ratios is due to the five-year smoothing of gains and losses in the actuarial funding ratio while the market funding ratio reflects the immediate impact of investment gains and losses. As of December 31, 2018, IMRF's market-based funding value change was lower than the actuarial funding value since there were $2,074.3 million of unrecognized actuarial investment losses, which will be reflected in the 2019 through 2022 period in keeping with the five-year actuarial smoothing technique discussed above.

The preceding ratios are for the Fund as a whole. Under the Illinois Pension Code, each employer funds the pensions for its own employees. Funding ratios for individual employers and individual plans vary widely. IMRF members can look with a sense of security to the net position base since these assets are irrevocably committed to the payment of their pensions when they retire. The actuary has determined that the present net position base, expected future contributions, and investment earnings thereon are sufficient to provide for full payment of future benefits under the level payroll percentage method of funding. The "Actuarial" section of this report contains the actuary's letter and further information on IMRF's funding. The funding policy was last reviewed by the IMRF Board of Trustees in December 2017 with new mortality tables being adopted for the 2017 valuation. The 2018 actuarial valuation included a lowering of the assumed investment rate of return from 7.5% to 7.25%.

INVESTMENTS

The investment portfolio is a major contributor to the Fund. Year 2018 investment returns resulted in a loss of $1,747 million and represented 452.8% percent of the negative Plan Additions for the year. In the past five years—2014 through 2018—investment income represented the following percentage of Additions to fiduciary net position:

Year	Percentage of Additions
2018	(452.8)%
2017	81.5%
2016	67.0%
2015	13.7%
2014	61.1%

IMRF's primary goal is to optimize the long-term total return of the Fund's investments through a policy of diversification within a parameter of prudent risk, as measured on the total portfolio. Currently, the public markets portfolio is managed by 41 professional investment management firms handling 45 mandates. These firms make investment decisions under the Prudent Man Rule authorized by Article 1 of the Illinois Pension Code and by investment policy guidelines adopted by the Board of Trustees. The private markets portfolio is invested with 53 investment firms across 124 separate funds. These firms make investment decisions under the Prudent Man Rule, authorized by Article 1 of the Illinois Pension Code and by investment policy guidelines adopted by the Board of Trustees.

The Board employs an Investment Consultant to assist staff in the development and evaluation of IMRF's strategic asset allocation, asset liability modeling study, and investment policy statements. The Investment Consultant also assists with the selection of investment management firms and in the monitoring and evaluation of investment manager performance.

The "Investments" section of this report contains a summary of IMRF's investment portfolio, investment performance, the Investment Consultant's report, the Master Trustee's report, and a summary of the investment objectives and policies.

CURRENT AND FUTURE DEVELOPMENTS

A. BOARD OF TRUSTEES

Sue Stanish, who has served as Trustee since 2014, was elected to her second term as Executive Trustee. Her second term will run from January 1, 2019, through December 31, 2023.

B. LEGISLATIVE ACTIVITY APPLICABLE TO IMRF (PASSED IN 2018)

Three bills that affect IMRF passed the General Assembly in 2018:

Public Act 100-0935

Allows for electronic and phone balloting options to be offered in addition to paper ballots for member and annuitant trustee elections. Effective January 1, 2019.

Public Act 100-1097

Provides that a person who participated as a police chief under the Downstate Police (Article 3) pension fund and returns to work with the same municipality in any capacity with the police department, with any oversight of the police department, or in an advisory capacity for the police department, regardless of whether he or she is eligible for participation in the Article 3 fund or he or she is considered an employee of the police department is not eligible for IMRF participation. Applicable only to employees who have no IMRF service credit in any capacity prior to January 1, 2019. Also, clarifies that for certain employers permitted to opt their police and/or fire employees in to IMRF SLEP, such election is only applicable for members who are first hired on or after January 1, 2011. Effective August 26, 2018, but the police chief provision is only applicable to prospective enrollments on or after January 1, 2019.

Public Act 100-0902

Requires all Illinois pension funds to use best efforts to ensure that the racial and ethnic makeup of its senior administrative staff represents the racial and ethnic makeup of its membership. Effective August 17, 2018.

C. SYSTEMS DEVELOPMENT

IMRF's major 2018 system development priorities focused on:

- Continuing the Horizon Project system implementation, including the completion of Phase 1 "Commitments, Requirements Confirmation & Fit Gap" and Phase 2 "Design for Gaps"; the start of Phase 3 "Purchase and Installation of Software and Hardware" and of Phase 4 "Build and Deploy".
- Developing and issuing a comprehensive Request for Proposal (RFP) for the implementation of enhanced telephony tools to be integrated with Horizon functionality to support IMRF's Customer Service Goals. A new vendor is working with IMRF's Horizon consultant in the interfaces of both systems.
- Replacing the SAN disk storage to increase the amount of storage space required for Horizon.
- Replacing all staff desktop computers and rolling out of Microsoft Windows 10 for the whole organization.
- Replacing IMRF existing backup solution (Acronis) with VEEAM Backup and Replication to provide improved backup and restore capabilities.

IMRF's major 2019 system development priorities will focus on:

- Continuing the Horizon Project system implementation, including the completion of Phase 3 "Purchase and Installation of Software and Hardware" and the continuation of Phase 4 "Build and Deploy". Planned launch of Horizon is set for late summer 2021.
- Implementing enhanced telephony tools to support IMRF Customer Service Goals.
- Installing additional computer hardware to support the Horizon Project.
- Installing replication networks between our primary site (Oak Brook) and disaster recovery site (Northbrook).
- Implementing of site-to-site data replication between Oak Brook and Northbrook disaster recovery site for open systems data and mainframe backup data.
- Upgrading the IMRF Active Directory environment software.

D. INVESTMENT ACTIVITIES

On February 14, 2019, IMRF staff and its consultant presented the 2019 Asset Allocation Review to the Investment Committee of the IMRF Board of Trustees. Asset allocation targets were approved by the Board and became effective as of February 14, 2019. The 2018 and 2019 asset allocation targets are listed in the table below:

Asset Class	2019 Target	2018 Target
U.S. equities	37%	37%
International equities	18%	18%
Fixed income	28%	28%
Real estate	9%	9%
Alternative investments	7%	7%
Short term	1%	1%

Major investment activities in 2018 through March 31, 2019, were as follows:

- The IMRF Investment Committee Charter, Statement of Investment Policy, and Real Estate Statement of Investment Policy were revised by staff and approved by the Board.
- Additional commitments were made to five follow-on funds of four existing real estate managers.
- Additional commitments were made to 16 follow-on funds of 10 existing private equity managers.
- New commitments were made to three new private equity firms. Of these, one was a new fund and two were new private equity evergreen separate accounts.
- New commitment was made to one new infrastructure firm.
- Funds withdrawn from an existing passively-managed U.S. stock index fund were allocated to a new Minority, Women and Business Enterprise (MWBE) passively-managed domestic equity index fund.
- A mandate for one high-income fixed income fund was converted to a private debt separately managed account. Funds resulting from the full-redemption of IMRF's investment in this high-income bond fund were subsequently transferred to the private-debt separately managed account.
- A mandate for one U.S. micro-cap equity portfolio was converted to International Developed + Canada. Funds resulting from the full-redemption of IMRF's investment in the U.S. micro-cap equity portfolio were transferred to the International Developed + Canada strategy.
- Funds withdrawn from a U.S. small-cap growth equity fund, and a U.S. large-cap growth equity portfolio, were used to make allocations to three MWBE core fixed income managers and to one high-yield fixed income portfolio. The remaining funds in the U.S. small-cap growth equity fund were transferred to a separately managed account at the same firm.
- Finally, the 2019 Asset Allocation Review presented by staff and consultant was approved by the Board. It resulted in the reaffirmation of the existing strategic asset allocation targets for the investment portfolio listed in the chart above.

E. STRATEGIC PLAN

IMRF's Strategic Plan provides the Fund with a road map for meeting the challenges and opportunities in achieving our Vision to provide the highest quality retirement services to our members, their beneficiaries, and employers in a cost-effective manner. The Plan guides our efforts to continuously improve customer service to our employers and members.

The 2017-2019 IMRF Strategic Plan includes elements of the *Baldrige Criteria for Performance Excellence* to ensure we align our objectives, processes, and resources with our Vision. IMRF staff implemented a series of action plans that support our four Strategic Objectives during 2018. We include the following four key result areas on our leadership scorecard to measure our progress towards meeting our objectives:

- Financial Health
- Customer Engagement
- Workforce Engagement
- Operational Excellence

F. ILLINOIS PERFORMANCE EXCELLENCE \ BALDRIGE CRITERIA FOR PERFORMANCE EXCELLENCE

Illinois Performance Excellence (ILPEx/IMEC) is a non-profit organization that seeks to help organizations improve their performance by utilizing the Baldrige Criteria for Performance Excellence and aligning their processes to become more efficient and sustainable. Organizations that pursue the Baldrige management framework can demonstrate through the ILPEx award application that they have adopted proven performance practices, principles, and strategies that nurture excellence in all aspects of their operations. This can range from customer relations to workforce engagement to specific operational and financial results. The comprehensive feedback report received from ILPEx provides additional guidance on how IMRF can further leverage our strengths and pursue opportunities for improvement.

IMRF was proud to be the recipient of the ILPEx Gold Award (representing achievement of excellence) in 2017.

Achieving the highest level of recognition at a state level (ILPEx Gold) qualified IMRF to apply at the national level via the Malcolm Baldrige National Quality Award (MBNQA). Established by Congress in 1987, the MBNQA was designed to raise awareness of quality management and to recognize US organizations that have implemented successful quality-management systems. IMRF submitted an application to MBNQA in April 2018, qualified for a site visit, and received a comprehensive feedback report. IMRF is submitting an application for the 2019 evaluation cycle. Our application demonstrates IMRF's continued dedication to delivering excellent customer service to our members, annuitants, and employers by continuing our journey to maintain excellence using the Baldrige Criteria for Performance Excellence.

G. DEFINED BENEFIT ADMINISTRATION BENCHMARKING ANALYSIS

CEM Benchmarking Inc. conducts an annual Defined Benefit Administration Benchmarking Analysis for public pension systems. IMRF has participated in this benchmarking program since 2001. This program provides insight into benefit administration costs, customer service levels, and industry best practices. Our objective is to provide the highest quality of service at a median cost. IMRF's total service score placed in the top 15%, while our costs were close to the median, as compared to our peer group of 44 public systems in the U.S. and Canada. IMRF will continue to participate in this benchmarking program, as it is an important part of our continuous process improvement program.

REPORTS TO MEMBERSHIP

IMRF issued a variety of reports covering 2017 and 2018 activity. We provided employer statements every month. We issued annuitant statements in November 2018, active member statements in February 2019, and inactive member statements in March 2019. We will include a summary of this Annual Report for members and annuitants in *Fundamentals*, IMRF's member newsletter. We will advise Authorized Agents in May 2019 that this report, as well as our Popular Annual Financial Report, is available on our website, www.imrf.org.

ADDITIONAL AWARDS AND ACKNOWLEDGMENTS

AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to IMRF for its Comprehensive Annual Financial Report for the year ended December 31, 2017. IMRF has received a Certificate of Achievement from the GFOA for the last 38 consecutive years (fiscal years 1980-2017).

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized Comprehensive Annual Financial Report, whose contents conform to program standards. Such a report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we will submit it to the GFOA. The Certificate of Achievement is a prestigious national award, recognizing conformance with the highest standards for preparation of state and local government financial reports.

IMRF also received a Certificate of Achievement for Excellence in Financial Reporting for its Popular Annual Financial Report for the year ended December 31, 2017.

IMRF received the GFOA Distinguished Budget Award for its 2018 budget. The Government Finance Officers Association of the United States and Canada (GFOA) awarded the Distinguished Budget Presentation Award for the fourth consecutive time to IMRF. The award is for a one-year period. IMRF has applied again for this prestigious award for the 2019 budget document.

In 2018, in recognition of meeting professional standards for plan administration and funding as set forth in the Public Pension Standards, IMRF was awarded for plan funding and administration by the Public Pension Coordinating Council, a confederation of the National Association of Retirement Administrators, the National Conference on Public Employee Retirement Systems, and the National Council on Teacher Retirement.

In March 2019, IMRF was awarded the 2019 Plan Sponsor of the Year honor by The PLANSPONSOR Magazine. This national publication dedicated to retirement and benefit programs, recognized IMRF within the Defined Benefit category for exceptional funding level, disciplined investment approach, and a focus on continuous improvement.

ACKNOWLEDGMENTS

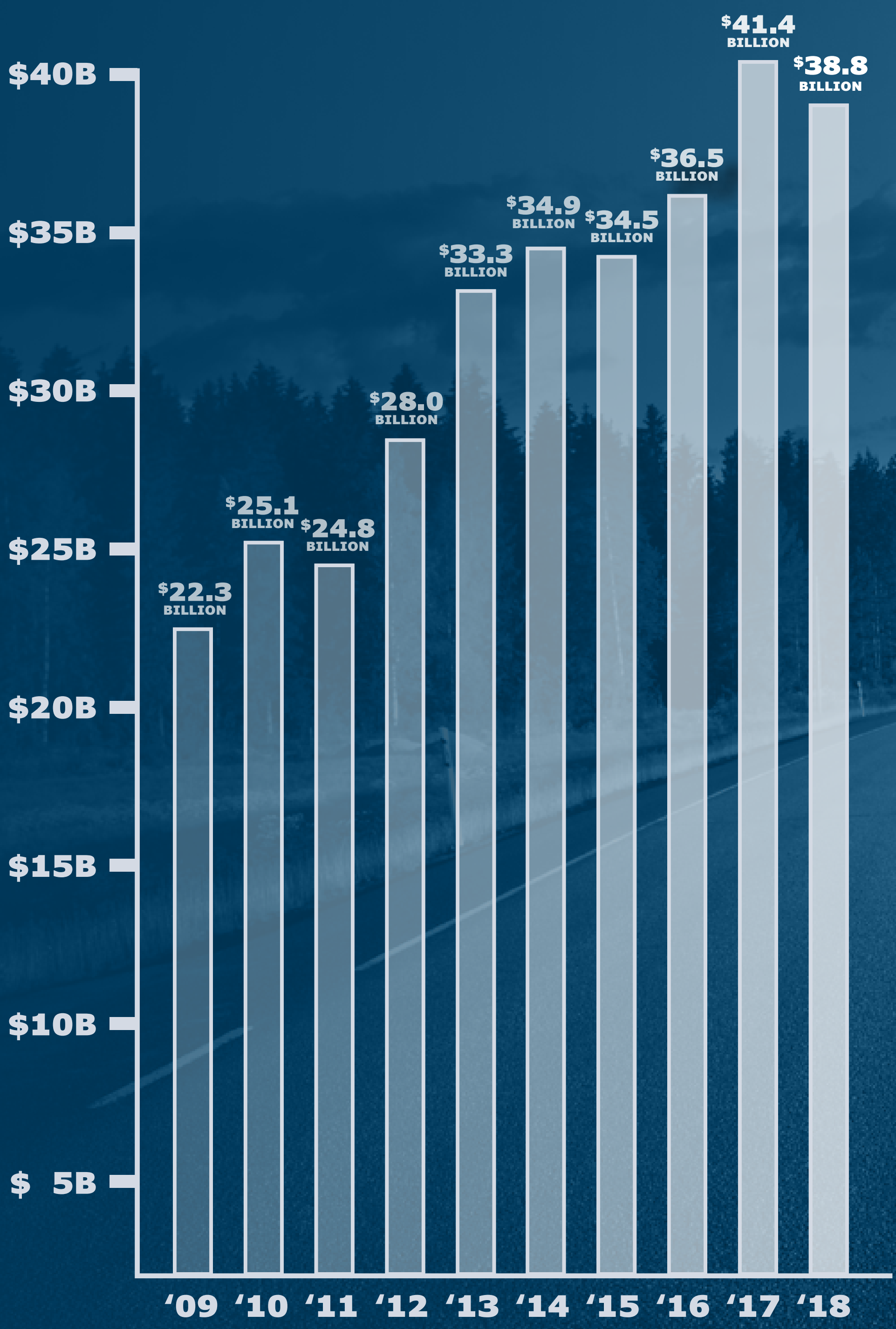
The production of this report reflects the combined effort of the IMRF staff under the leadership of the Board of Trustees and the Executive Director Brian Collins. The Finance department, under the direction of Mark Nannini, compiled the report. We believe this report provides complete and reliable information for making management decisions, for determining compliance with legal provisions, and for determining responsible stewardship for the assets contributed by our members and their employers.

We make this report available to the Authorized Agents of all participating units of government. The Authorized Agents form the link between IMRF and its membership. Their cooperation, for which we are thankful, contributes significantly to the success of IMRF. We hope they will find this report both informative and helpful.

Brian Collins
Executive Director

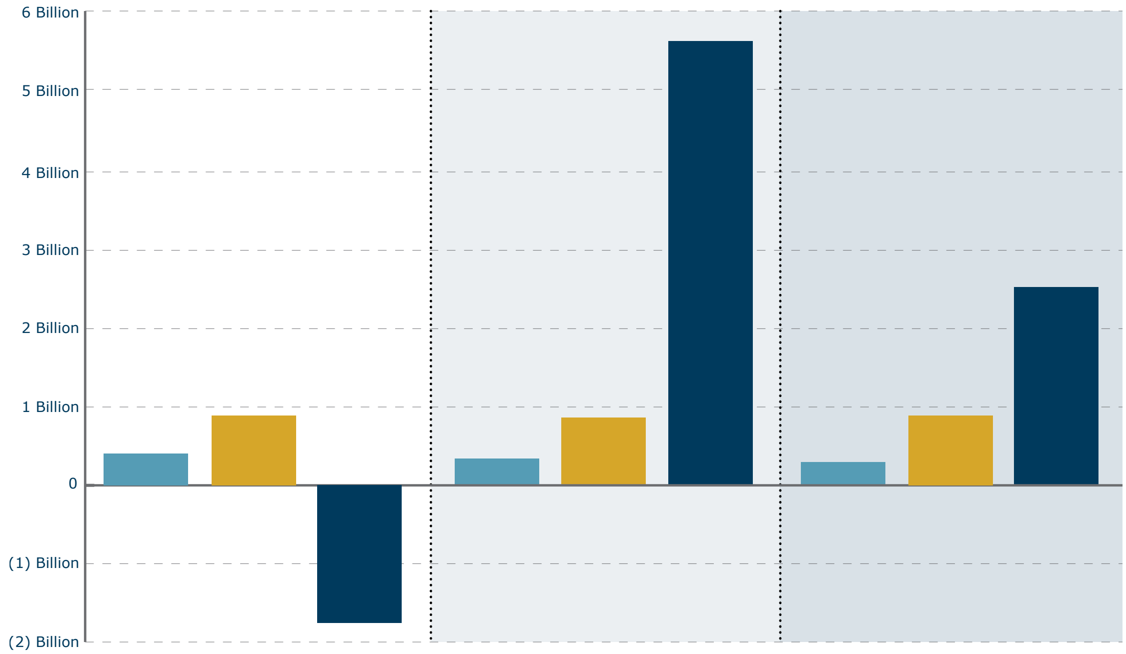
Mark F. Nannini
Chief Financial Officer

FIDUCIARY NET POSITION OVER THE LAST TEN YEARS



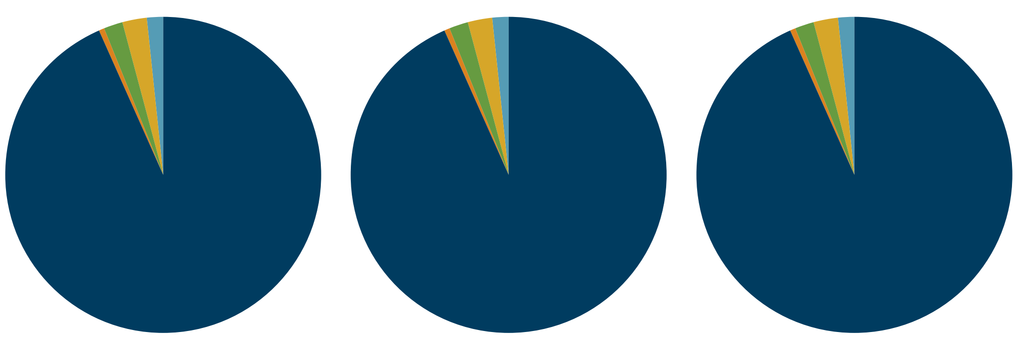
IMRF's financial position remains strong. With 74% growth from 2009 to 2018—an addition of $16.5 billion—IMRF will continue to provide secure and stable retirements for thousands of public employees in Illinois long into the future.

REVENUES BY SOURCE



	2018	2017	2016
Members	$ 413,901,691	$ 393,747,860	$ 380,385,015
Employers	947,568,823	903,482,031	933,937,321
Investments	(1,747,203,282)	5,718,234,826	2,664,877,114
Total	**$ (385,732,768)**	**$ 7,015,464,717**	**$ 3,979,199,450**

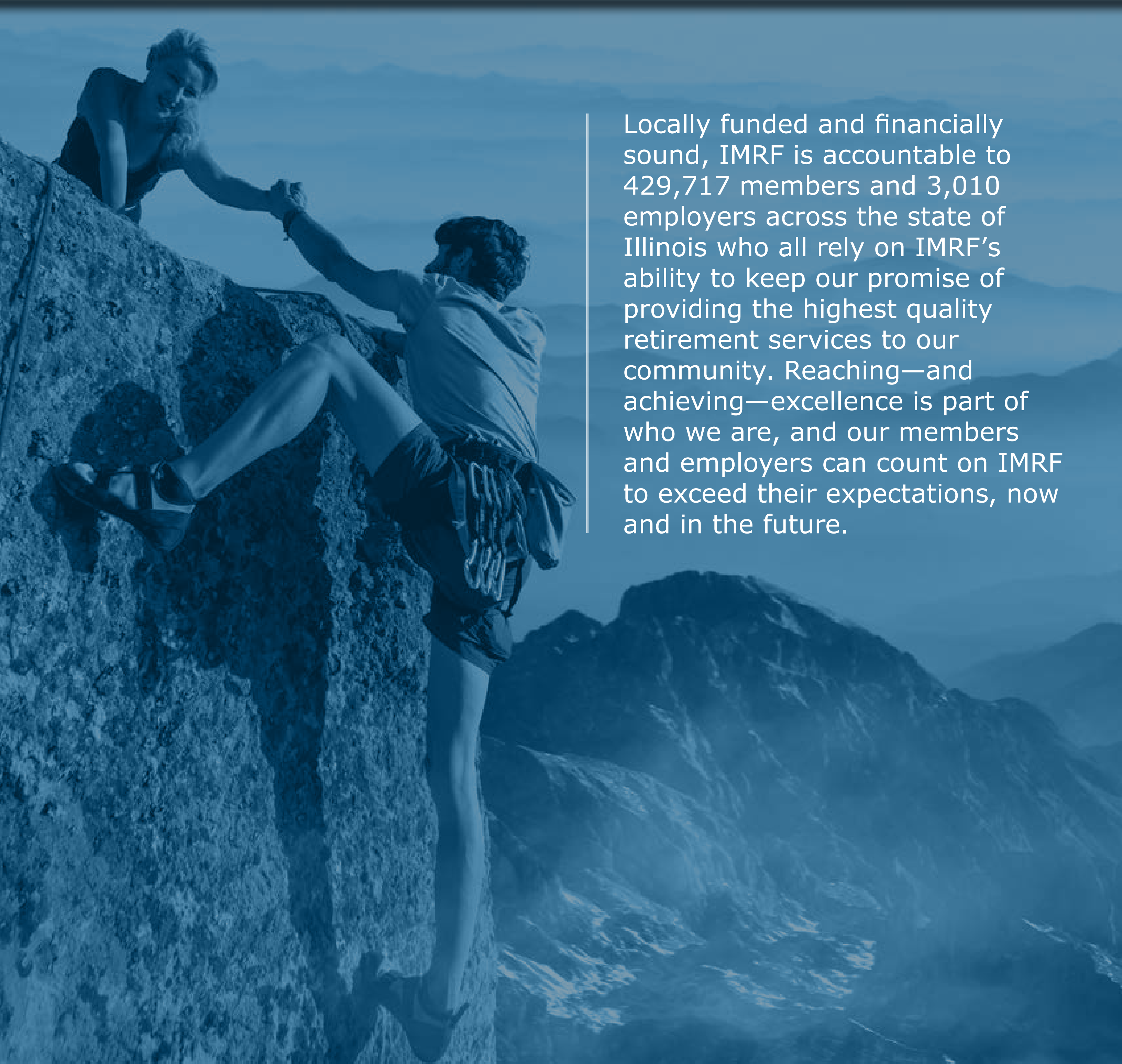
EXPENSES BY TYPE



	2018	2017	2016
Annuities	$2,152,717,883	$2,005,490,975	$1,862,661,433
Disability	9,440,326	9,451,533	9,707,497
Death	32,803,194	28,671,149	29,770,969
Refunds	48,028,752	42,552,060	37,690,098
Administrative	32,213,168	31,038,134	38,702,236
Total	**$2,275,203,323**	**$2,117,203,851**	**$1,978,532,233**

** Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions*

ACCOUNTABILITY



Locally funded and financially sound, IMRF is accountable to 429,717 members and 3,010 employers across the state of Illinois who all rely on IMRF's ability to keep our promise of providing the highest quality retirement services to our community. Reaching—and achieving—excellence is part of who we are, and our members and employers can count on IMRF to exceed their expectations, now and in the future.

FINANCIAL

RSM US LLP

Independent Auditor's Report

The Board of Trustees
Illinois Municipal Retirement Fund

Report on the Financial Statements
We have audited the accompanying Statements of Fiduciary Net Position of the Illinois Municipal Retirement Fund (the Fund), as of December 31, 2018 and 2017, and the related Statements of Changes in Fiduciary Net Position for the years then ended, and the related notes to the basic financial statements as listed in the table of contents.

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

Auditor's Responsibility
Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits 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 financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 the entity'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 financial statements.

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

Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Illinois Municipal Retirement Fund as of December 31, 2018 and 2017, and the changes in fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information:

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 20 through 23, the schedules of money-weighted rate of returns and changes in the total OPEB liability and related ratios on pages 51 through 52 be presented to supplement the financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information:

Our audit for the years ended December 31, 2018 and 2017, were conducted for the purpose of forming an opinion on the Fund's financial statements. The other supplementary information consisting of Supporting Schedules in the financial section, and the accompanying introduction, investments, actuarial, and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information for the years ended December 31, 2018 and 2017 is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The other supplementary information has been subjected to the auditing procedures applied in the audit of the financial statements for the years ended December 31, 2018 and 2017 and certain additional procedures, including comparing and reconciling such information directly to underlying accounting and other records used to prepare the financial statements, or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated in all material respects, in relation to the financial statements as a whole for the years ended December 31, 2018 and 2017.

The introduction, investments, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

RSM US LLP

Schaumburg, Illinois
May 15, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following Management's Discussion and Analysis (MD&A) of the Illinois Municipal Retirement Fund's (IMRF or the "Fund") financial performance provides an introduction to the financial statements of IMRF for the years ended December 31, 2018, and December 31, 2017. Since the MD&A is designed to focus on current activities, resulting changes, and current known facts, please read it in conjunction with the formal transmittal letter (pages 7-13), the financial statements and notes, required supplementary information, and supplementary information.

REQUIRED FINANCIAL STATEMENTS

IMRF, an agent multiple-employer public employee retirement system, prepares its financial statements on an accrual basis in accordance with Generally Accepted Accounting Principles promulgated by the Governmental Accounting Standards Board (GASB). The Statements of Fiduciary Net Position include all of IMRF's assets and liabilities and provides information about the nature and amount of investments available to satisfy the pension benefits of the Fund. All additions to and deductions from the net position held in trust for pension benefits are accounted for in the Statements of Changes in Fiduciary Net Position. These statements measure IMRF's success over the past year in increasing the fiduciary net position available for pension benefits.

Due to the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Post-employment Benefits Other than Pensions*, portions of the financial statements have been restated to reflect a prior period adjustment for fiscal years 2017 and 2016.

FINANCIAL ANALYSIS OF IMRF

In 2018, contributions of $1,361 million, investment loss of $1,747 million, and deductions to fiduciary net position of $2,275 million resulted in a net reduction of $2,661 million. This net decrease brought the Fund's fiduciary net position to $38.8 billion.

FIDUCIARY NET POSITION

To begin the financial analysis, summarized comparisons of IMRF's Fiduciary Net Position for 2018 versus 2017 and 2017 versus 2016 are presented below. These have been revised due to the implementation of GASB Statement No. 75.

CONDENSED STATEMENTS OF FIDUCIARY NET POSITION *(IN MILLIONS)*

	2018	2017	Dollar Change	Percent Change
Cash and cash equivalents	$ 1.3	$ 1.6	$ (0.3)	(18.8)%
Receivables and prepaids	533.7	394.5	139.2	35.3
Investments	38,511.0	41,214.8	(2,703.8)	(6.6)
Invested securities lending cash collateral	248.6	350.7	(102.1)	(29.1)
Capital assets, net	23.9	15.2	8.7	57.2
Total assets	**39,318.5**	**41,976.8**	**(2,658.3)**	**(6.3)**
Deferred outflow of resources	**0.1**	**0.1**	**-**	**-**
Liabilities	**567.0**	**564.7**	**2.3**	**0.4**
Deferred inflow of resources	**0.5**	**0.2**	**0.3**	**150.0**
Fiduciary net position, as restated	**$ 38,751.1**	**$ 41,412.0**	**$ (2,660.9)**	**(6.4)%**

Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions

As the table shows, fiduciary net position decreased by $2,661 million, or a negative 6.4% in 2018.

This decrease reflects the decline in investment returns in 2018. The increase in receivables and prepaids in 2018 is largely due to the increase in the receivables, from brokers for unsettled trades at year-end due to a larger number of trades outstanding at year-end 2018 compared to 2017. The increase in liabilities in 2018 is due primarily to the increase in the payables to brokers for unsettled trades at year-end 2018.

The following table presents the investment allocation as of year-end 2018 and 2017 as compared to IMRF's target allocation.

	2018	Target	2017
U.S. equities	39.6%	37.0%	42.7%
International equities	18.0	18.0	20.1
Fixed income	29.5	28.0	26.2
Real estate	7.2	9.0	6.2
Alternative investments	4.0	7.0	3.2
Short-term	1.7	1.0	1.6

The variance in the real estate allocation is due to the fact that IMRF is in the process of recapitalizing its real estate portfolio, and actual investments trail commitments. IMRF is also looking to increase its allocation to alternative investment strategies. The current target allocations were reconfirmed during Investment Committee meetings in 2018. IMRF continuously monitors its actual investment allocations in relation to its targets and rebalances as appropriate.

CONDENSED STATEMENTS OF FIDUCIARY NET POSITION *(IN MILLIONS)*

	2017	2016	Dollar Change	Percent Change
Cash and cash equivalents	$ 1.6	$ 0.8	$ 0.8	100.0%
Receivables and prepaids	394.5	485.4	(90.9)	(18.7)
Investments	41,214.8	36,364.3	4,850.5	13.3
Invested securities lending cash collateral	350.7	361.2	(10.5)	(2.9)
Capital assets, net	15.2	11.8	3.4	28.8
Total assets	**41,976.8**	**37,223.5**	**4,753.3**	**12.8**
Deferred outflow of resources	**0.1**	**-**	**0.1**	**NM**
Liabilities	**564.7**	**709.8**	**(145.1)**	**(20.4)**
Deferred inflow of resources	**0.2**	**-**	**0.2**	**NM**
Fiduciary net position, as restated	**$ 41,412.0**	**$ 36,513.7**	**$ 4,898.3**	**13.4%**

Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions
NM - Not meaningful

As the table shows, fiduciary net position increased by $4,898 million, or 13.4% in 2017.

The increase reflects the investment returns in 2017. The decrease in the receivables and prepaids in 2017 is largely due to the decrease in the receivables from brokers for unsettled trades at year-end due to a larger number of trades outstanding at year-end 2017 compared to 2016. The decrease in liabilities in 2017 is due primarily to the decrease in the securities lending cash.

CHANGES IN FIDUCIARY NET POSITION

Summarized comparisons of IMRF's Changes in Fiduciary Net Position for 2018 versus 2017 are presented below.

CONDENSED STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION *(IN MILLIONS)*

	2018	2017	Dollar Change	Percent Change
Additions				
Member contributions	$ 413.9	$ 393.7	$ 20.2	5.1%
Employer contributions	947.6	903.5	44.1	4.9
Net investment (loss) gain	(1,747.2)	5,718.3	(7,465.5)	(130.6)
Total additions	**(385.7)**	**7,015.5**	**(7,401.2)**	**(105.5)**
Deductions				
Benefits	2,195.0	2,043.6	151.4	7.4
Refunds	48.0	42.6	5.4	12.7
Administrative expenses	32.2	31.0	1.2	3.9
Total deductions	**2,275.2**	**2,117.2**	**158.0**	**7.5**
Net (decrease) increase in fiduciary net position, as restated	**$ (2,660.9)**	**$ 4,898.3**	**$ (7,559.2)**	**(154.3)%**

Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions

ADDITIONS

Additions needed to fund benefits are accumulated through contributions and returns on invested funds. Contributions for 2018 totaled $1,361 million which was 5.0% more than 2017. The increase reflects the increase in total member payroll to $7,321 million in 2018 from $7,127 million in 2017. The member contribution rate remained at 4.5% of earnings for Regular members and 7.5% for Sheriff's Law Enforcement Personnel (SLEP) and the optional Elected County Official (ECO) members. For rate-setting purpose there is a two-year lag between the date that data is used to compute employer contribution rates and the effective date of those rates.

Investment losses for 2018 were a negative 4.4%. The $1,747 million investment loss in 2018 represents a $7,465 million change from the $5,718 million gain in 2017. IMRF's 2018 total investment portfolio return was down due to weak and uncertain markets at the end of 2018.

In 2018, IMRF had net depreciation in the value of investments of $2,455 million, a $7,479 million change from the $5,024 million of appreciation recorded in 2017. Interest, dividends, and equity fund income totaled $827 million, an increase from $801 million in 2017. Securities lending income net of related expenses was $7.3 million for 2018, a decrease of $2.5 million from 2017. Direct investment expenses increased to $127.0 million in 2018 from $116.1 million in 2017.

The total rate of return for the portfolio in 2018 was a negative 4.4% compared to 15.7% in 2017. IMRF's U.S. stock portfolio returned a negative 6.3% compared to a negative 5.2% custom benchmark. The fixed income portfolio returned a negative 0.4% compared to 0.0% for the Bloomberg Aggregate Bond Index. The international stock portfolio returned a negative 14.4% compared to a negative 14.2% for the MSCI All-Country World Index ex-US. The real estate portfolio returned 8.4% compared to 7.4% for the custom benchmark. The alternative investment portfolio returned 17.3%.

DEDUCTIONS

The expenses paid by IMRF include benefit payments, refunds, and administrative expenses. Expenses for 2018 totaled $2,275 million, an increase of $158 million over 2017. The increase in benefit payments to members and beneficiaries resulted primarily from growth in the number of annuitants to 133,261 in 2018 from 128,264 in 2017, as well as an increase in the amount of the average benefit.

CONDENSED STATEMENT OF CHANGES IN FIDUCIARY NET POSITION *(IN MILLIONS)*

	2017	2016	Dollar Change	Percent Change
Additions				
Member contributions	$ 393.7	$ 380.4	$ 13.3	3.5%
Employer contributions	903.5	933.9	(30.4)	(3.3)
Net investment gain	5,718.3	2,664.9	3,053.4	114.6
Total additions	**7,015.5**	**3,979.2**	**3,036.3**	**76.3**
Deductions				
Benefits	2,043.6	1,902.1	141.5	7.4
Refunds	42.6	37.7	4.9	13.0
Administrative expenses	31.0	38.7	(7.7)	(19.9)
Total deductions	**2,117.2**	**1,978.5**	**138.7**	**7.0**
Net increase in fiduciary net position, as restated	**$ 4,898.3**	**$ 2,000.7**	**$ 2,897.6**	**144.8%**

Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions

ADDITIONS

Additions needed to fund benefits are accumulated through contributions and returns on invested funds. Contributions for 2017 totaled $1,297 million which was 1.3% less than 2016. The decrease reflects the decrease in employer contribution rates for 2017. The member contribution rate remained at 4.5% of earnings for Regular members and 7.5% for Sheriff's Law Enforcement Personnel (SLEP) and the optional Elected County Official (ECO) members. For rate-setting purpose there is a two-year lag between the date that data is used to compute employer contribution rates and the effective date of those rates.

Investment returns for 2017 were 15.7%, significantly higher than the 2016 return. The $5,718 million investment gain in 2017 represents a $3,053 million change from the $2,665 million gain in 2016. IMRF's 2017 total investment portfolio return was up due to strong markets throughout 2017.

In 2017, IMRF had net appreciation in the value of investments of $5,024 million, a $2,986 million change from the $2,038 million of appreciation recorded in 2016. Interest, dividends, and equity fund income totaled $801 million, an increase from $730 million in 2016. Securities lending income net of related expenses was $9.8 million for 2017, a decrease of $0.4 million from 2016.

The total rate of return for the portfolio in 2017 was 15.7% compared to 7.8% in 2016. IMRF's U.S. stock portfolio returned 19.6% compared to 21.1% for the custom benchmark. The fixed income portfolio returned 4.7% compared to 3.5% for the Bloomberg Aggregate Bond Index. The international stock portfolio returned 27.5% compared to 27.2% for the MSCI All-Country World Index ex-US. The real estate portfolio returned 9.1% compared to 6.7% for the custom benchmark. The alternative investment portfolio returned 12.2%.

DEDUCTIONS

The expenses paid by IMRF include benefit payments, refunds, and administrative expenses. Expenses for 2017 totaled $2,117 million, an increase of $139 million over 2016. The increase in benefit payments to members and beneficiaries resulted primarily from growth in the number of annuitants to 128,264 in 2017 from 123,206 in 2016, as well as an increase in the amount of the average benefit.

MONEY-WEIGHTED RATE OF RETURN

When comparing returns it is important to remember that as a pension fund, IMRF's investment program has a very long time horizon. See the "Investments" section for details of some of the longer term results. IMRF's money-weighted rate of return of the periods ending:

For the year ended	Return
December 31, 2018	(4.19)%
December 31, 2017	15.93%
December 31, 2016	7.84%

STATEMENTS OF FIDUCIARY NET POSITION

	Years Ended December 31	
	2018	**2017**
Assets		
Cash and cash equivalents	**$ 1,257,209**	**$ 1,542,479**
Receivables and prepaid expenses		
Contributions	76,209,767	92,172,658
Investment income	96,845,127	80,218,166
Receivables from brokers for unsettled trades	194,848,811	69,442,053
Prepaid expenses	165,804,813	152,653,034
Total receivables and prepaid expenses	**533,708,518**	**394,485,911**
Investments, at fair value		
Fixed income	11,349,000,125	10,806,624,652
Stocks	22,182,142,216	25,888,519,850
Short-term investments	663,791,748	653,971,578
Real estate	2,756,158,340	2,550,292,616
Alternative investments	1,559,870,360	1,315,391,576
Total investments	**38,510,962,789**	**41,214,800,272**
Invested securities lending cash collateral	**248,571,446**	**350,734,959**
Capital assets		
Equipment, at cost	40,764,428	30,078,680
Accumulated depreciation	(16,830,396)	(14,882,879)
Total capital assets	**23,934,032**	**15,195,801**
Total assets	**39,318,433,994**	**41,976,759,422**
Deferred outflow of resources	**101,447**	**92,016**
Liabilities		
Accrued expenses and benefits payable	31,579,700	30,341,080
Securities lending cash collateral	248,571,446	350,734,959
Payables to brokers for unsettled trades	286,825,855	183,613,111
Total liabilities	**566,977,001**	**564,689,150**
Deferred inflow of resources	**488,037**	**155,794**
Net position restricted for pensions, as restated	**$ 38,751,070,403**	**$ 41,412,006,494**

The accompanying notes are an integral part of the financial statements.

Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

	Years Ended December 31	
	2018	**2017**
Additions		
Contributions		
Members for retirement coverage	$ 413,901,691	$ 393,747,860
Employers for benefit plan coverage	947,568,823	903,482,031
Total contributions	**1,361,470,514**	**1,297,229,891**
Investment income		
From investing activities		
Interest	290,738,595	287,603,308
Dividends	356,756,590	321,833,838
Equity fund income, net	180,072,636	191,648,807
Net (depreciation) appreciation in fair value of investments	(2,455,079,445)	5,023,512,087
Investment activity (loss) gain	**(1,627,511,624)**	**5,824,598,040**
Less: Direct investment expense	(126,975,171)	(116,130,444)
Net investment activity (loss) gain	**(1,754,486,795)**	**5,708,467,596**
From security lending activity		
Securities lending income	9,555,135	10,487,794
Securities lending management fees and borrower rebates	(2,285,472)	(733,764)
Net security lending activity income	**7,269,663**	**9,754,030**
Total investment (loss) gain	**(1,747,217,132)**	**5,718,221,626**
Other	**13,850**	**13,200**
Total additions	**(385,732,768)**	**7,015,464,717**
Deductions		
Annuities	2,152,717,883	2,005,490,975
Disability benefits	9,440,326	9,451,533
Death benefits	32,803,194	28,671,149
Refunds	48,028,752	42,552,060
Administrative expenses	32,213,168	31,038,134
Total deductions	**2,275,203,323**	**2,117,203,851**
Net (decrease) increase	**(2,660,936,091)**	**4,898,260,866**
Net position restricted for pensions		
Beginning of year, as restated	**41,412,006,494**	**36,513,745,628**
End of year	**$ 38,751,070,403**	**$ 41,412,006,494**

The accompanying notes are an integral part of the financial statements.

Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions

NOTES TO BASIC FINANCIAL STATEMENTS *(December 31, 2018 and 2017)*

A. PLAN DESCRIPTION

The Illinois Municipal Retirement Fund (IMRF or the "Fund") is the administrator of an agent multiple-employer public employee retirement system. The Illinois State Legislature established IMRF to provide employees of local governments and school districts a sound and efficient retirement system. Members, employers and annuitants elect eight trustees who govern IMRF. Four Executive Trustees are elected by employers, three Employee Trustees are elected by members, and one Annuitant Trustee is elected by annuitants. Any IMRF member who has eight years of service credit as of December 31 of the election year is eligible to be nominated to serve as a trustee. State law authorizes the Board to make investments, pay benefits, set employer contribution rates, hire staff and consultants, and perform all necessary functions to carry out the provisions of the Illinois Pension Code. Benefit and contribution provisions are established by state law and may be amended only by the Illinois General Assembly. IMRF is administered in accordance with Illinois statutes. The statutes do not provide for termination of the plan under any circumstances.

IMRF is separate and apart from the Illinois state government and is not included in the state's financial statements. However, the Illinois Pension Code requires the Auditor General to approve appointment of independent public accountants as the external auditors.

1. EMPLOYERS

	2018	2017
Participating employers	3,010	2,997

The Illinois Pension Code specifies the units of government required to participate in IMRF and the units that may elect to join. Participation by the following units of government is mandatory:

- All counties except Cook,
- All school districts except Chicago and,
- All cities, villages and incorporated towns with a population over 5,000, other than Chicago, which do not provide Social Security or equivalent coverage for their employees before they reach a population of 5,000.

Other units of government with general taxing powers, such as townships and special districts, may elect to join. Participating instrumentalities, which include units of government without general taxing powers and not-for-profit organizations, associations, or cooperatives authorized by state statute, may participate. They must meet financial stability requirements. Units that elect to join the system may not under any circumstances terminate their participating employer status as long as they are in existence.

2. MEMBERS

	2018	2017
Inactive members		
Retirees and beneficiaries currently receiving benefits	133,261	128,264
Terminated members entitled to benefits but not yet receiving them	14,086	13,775
Terminated members—non-vested	105,853	102,195
Total inactive members	**253,200**	**244,234**
Active members		
Non-vested	90,475	86,520
Vested	86,042	89,045
Total active members	**176,517**	**175,565**
Grand total	**429,717**	**419,799**

Employers must enroll employees in IMRF if the positions meet the qualifications for IMRF membership.

There are some exceptions. City hospital employees and elected officials have the option to participate. IMRF does not cover individuals in certificated teaching positions covered by the Illinois Teachers' Retirement System. Also, IMRF does not generally cover individuals performing police or fire protection duties for employers with local police and fire pension funds. Certain police chiefs may choose to participate as Sheriff's Law Enforcement Personnel (SLEP) members.

3. CONTRIBUTIONS

The member contribution rates–4.5% for Regular members, 7.5% for SLEP members and Elected County Official (ECO) plan members–are set by statute. The statutes require each participating employer to contribute the amount necessary, in addition to member contributions, to finance the retirement coverage of its own employees. Employer contributions for disability benefits, death benefits, and the supplemental retirement benefits are pooled. Contribution rates for disability and death benefits are set by the IMRF Board of Trustees, while the supplemental retirement benefits rate is set by statute. Costs of administering the plan are financed by investment income. Contributions are based on employer payrolls and are due on the tenth of the month, following the month of payment pursuant to the authority vested in the IMRF Board by the Illinois Pension Code.

4. BENEFIT PROVISIONS

Benefits are established by statute and may only be changed by the General Assembly. The benefit provisions in effect on the member's date of participation determine a member's minimum benefit while the benefit provisions in effect on the member's date of termination determine a member's maximum benefit. The following is a summary of the IMRF benefit provisions as of December 31, 2018, and December 31, 2017. The ECO plan was created by statute in 1997 and was revised in 2000. In 2010 the General Assembly passed legislation which became Public Acts 96-0889 and 96-1495. These acts created a second tier within the Regular, SLEP, and ECO plans for members joining IMRF after December 31, 2010, with no prior qualifying service. On August 8, 2011, Public Act 97-0273 closed the ECO plan to new participants. A more extensive description of the plan can be found in the "Actuarial" section.

Plan	Regular Tier 1	Regular Tier 2	SLEP Tier 1	SLEP Tier 2	Original ECO	Revised ECO Tier 1	Revised ECO Tier 2
Vesting	8 years	10 years	20 years	10 years	8 years	8 years in each elected position	8 years in each elected position; 10 years in total
Minimum Age For Unreduced Benefit	35+ years of service: 55, otherwise 60	35+ years of service: 62, otherwise 67	50 with 20+ years of service	55 with 10+ years of service	Sheriffs with 20 years of SLEP service: 50, otherwise 55	Sheriffs with 20 years of SLEP service: 50, otherwise 55	Sheriffs with 10 years of SLEP service: 62, otherwise 67
Final Rate Of Earnings	Highest consecutive 48 months in the last 10 years	Highest consecutive 96 months in the last 10 years; pensionable earnings currently capped at $113,644.91 for 2018 increasing annually by 3% or ½ of CPI, whichever is less	Highest consecutive 48 months in the last 10 years	Highest consecutive 96 months in the last 10 years; pensionable earnings currently capped at $113,644.91 for 2018 increasing annually by 3% or ½ of CPI, whichever is less	Annual salary on the last day of ECO participation	Highest consecutive 48 months in the last 10 years for each elected position	Highest consecutive 96 months in the last 10 years; pensionable earnings currently capped at $113,644.91 for 2018 increasing annually by 3% or ½ of CPI, whichever is less
Survivor Benefits	Annuity for eligible spouse	Annuity for eligible spouse	Annuity for eligible spouse	Annuity for eligible spouse	Annuity for eligible spouse and unmarried children under 18	Annuity for eligible spouse and unmarried children under 18	Annuity for eligible spouse and unmarried children under 18
Post-Retirement Increase	3% of original amount	3% or 1/2 of CPI, whichever is less of original amount	3% of original amount	3% or 1/2 of CPI, whichever is less of original amount	3% of original amount	3% of original amount	3% or 1/2 of CPI, whichever is less of original amount
Early Retirement	At age 55, discount based on age and service	At age 62, discount based on age and service	None	At age 50, discount based on age and service	None	None	At age 62, discount based on age and service

Refunds

Members who terminate their IMRF participation may withdraw their contributions and forfeit future retirement benefits.

Early Retirement

IMRF employers may offer an Early Retirement Incentive (ERI) for active members who have 20 or more years of service and are age 50 (57 for Tier 2 members) or older. The program is optional with employers and may not be offered until the liability for any previous ERI is paid. An employer may not adopt an ERI more frequently than once every five years after the close of a prior ERI.

Supplemental Retirement Benefit

Retirees and surviving spouses who have been receiving benefits for at least one year receive a supplemental retirement benefit in July. The total supplemental benefit pool in each year is equal to 0.62% of the participating payroll for the previous year. An individual receives a *pro-rata* share of the total pool based upon the ratio of his or her individual benefits to the total benefits paid to all IMRF recipients.

Death Benefits

An eligible spouse of a deceased retired member receives a one-time death benefit of $3,000 plus a monthly pension equal to one-half (66-2/3% for ECO retirees and Tier 2 members) of the member's pension. The beneficiaries of a participating member who had at least one year of service receive a lump sum death benefit equal to one year's earnings (limited to the pensionable earnings cap for Tier 2 members) plus the member's contributions with interest. Death benefits paid upon the death of an inactive member vary depending on the member's age and service.

Disability

Members who have at least one year of service and meet the disability medical requirements will receive a benefit of up to 50% of the average monthly earnings in the 12 months preceding disability. Disabled ECO members receive a disability benefit equal to the benefit they would receive upon retirement. IMRF reduces the benefit by Social Security or workers' compensation awards. Members paid disability continue to receive pension service credit and death benefit protection.

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

1. REPORTING ENTITY

As defined by generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB), the financial reporting entity consists of a primary government, as well as its component units, which are legally separate organizations for which the elected officials of the primary government are financially accountable. Financial accountability is defined as:

(1) The primary government is financially accountable if it appoints a voting majority of the organization's governing body and (a) it is able to impose its will on that organization or (b) there is a potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the primary government.

(2) The primary government is financially accountable if an organization is fiscally dependent on and there is a potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the primary government.

Based upon these criteria, IMRF has no component units and IMRF is not a component unit of any other entity.

2. BASIS OF ACCOUNTING

IMRF prepares its financial statements using the accrual basis of accounting. It recognizes member and employer contributions as revenues in the month member earnings are payable in accordance with the provisions of the Illinois Pension Code. Benefits and refunds are recognized as expenses when payable. Expenses are recorded when the corresponding liabilities are incurred regardless of when payment is made.

3. USE OF ESTIMATES

The preparation of IMRF's financial statements in conformity with U.S. generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts and fiduciary net position at the date of the financial statements. Actual results could differ from those estimates.

4. RISKS AND UNCERTAINTIES

IMRF invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the value of investment securities will occur in the near term, and such changes could materially affect the amounts reported in the Statements of Fiduciary Net Position.

5. INCOME TAXES

IMRF is exempt from federal and state income taxes and has received a favorable determination from the Internal Revenue Service under Code section 401(a).

6. METHOD USED TO VALUE INVESTMENTS

IMRF reports investments at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value for stocks is determined by using the closing price listed on the national securities exchanges as of December 31. Fair value for fixed income securities is determined by using quoted market prices and other observable significant inputs including quoted prices for similar securities, interest rates, and fixed income pricing models provided by independent pricing services. For commingled funds, fair value is determined using the net asset value certified by the commingled fund manager as of December 31. Alternative investments, which include real estate, private equity and absolute return funds, fair value is determined using the net asset value (NAV) per share established by fund managers, which are subject to annual audit. Fair values for directly owned real estate investments are determined by appraisals. Fair value for the majority of derivative instruments is determined principally by using quoted market prices provided by independent pricing services. Remaining derivative instruments are priced by The Northern Trust Company by obtaining prices from a variety of internal and external sources.

7. DEFERRED INFLOWS/OUTFLOWS OF RESOURCES

The Statements of Fiduciary Net Position, in addition to assets, includes a separate section for the deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and as such, will not be recognized as an outflow of resources (deduction) until then. In addition to liabilities, the Statements of Fiduciary Net Position includes a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and as such, will not be recognized as an inflow of resources (addition) until that time.

8. RESTATEMENT OF NET POSITION

The implementation of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other Than Pensions, required the restatement of net position for the fiscal years ending December 31, 2017 and December 31, 2016. Changes to the financial statements included recording the other post-employment benefit (OPEB) liability, deferred outflows of resources, deferred inflows of resources, and OPEB expense as well as to the footnote (Note H) and required supplementary information disclosures. The financial statements have been restated as of December 31 as follows:

	2017	2016
Net position, as previously reported	$ 41,413,165,479	$ 36,514,897,799
Implementation of GASB 75	1,158,985	1,152,171
Net position, as restated	**$41,412,006,494**	**$ 36,513,745,628**

C. NEW ACCOUNTING PRONOUNCEMENTS

In June 2015, GASB issued Statement No. 75, *"Accounting and Financial Reporting for Post-employment Benefit Other Than Pension Plans."* The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for post-employment benefits other than pensions (other post-employment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. IMRF has adopted GASB Statement No. 75 for its December 31, 2018, financial statements. See Footnote H and related Required Supplementary Information.

In January 2017, GASB issued Statement No. 84, *"Fiduciary Activities."* The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported by primary governments. This statement is effective for IMRF's December 31, 2019 financial statements.

In March 2017, GASB issued Statement No. 85, *"Omnibus 2017."* The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. This Statement addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and post-employment benefits (pensions and other post-employment benefits [OPEB]). Where applicable, IMRF has adopted GASB Statement No. 85 for its December 31, 2018 financial statements.

In May 2017, GASB issued Statement No. 86, *"Certain Debt Extinguishment Issues."* The objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources (resources other than the proceeds of refunding debt) are placed in an irrevocable trust for the sole purpose of extinguishing debt. IMRF does not fall within the scope of Statement No. 86; therefore, there is no impact on its financial statements.

In June 2017, GASB issued Statement No. 87, *"Leases."* The objective of this Statement is to improve accounting and financial reporting for leases by governments. This statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underling asset. IMRF will adopt Statement No. 87 for its December 31, 2020, financial statements.

In March 2018, GASB issued Statement No. 88, *"Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements."* The objective of this Statement is to improve information that is disclosed in the notes to financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. IMRF does not carry any debt and therefore does not fall within the scope of Statement No. 88. There is no impact on its financial statements.

In June 2018, GASB issued Statement No. 89, *"Accounting for Interest Cost Incurred before the End of a Construction Period."* The objective of this Statement is (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. IMRF does not borrow funds for construction projects and therefore there is no impact to its financial statements.

In August 2018, GASB issued Statement No. 90, *"Majority Equity Interests."* The primary objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It also defines a majority equity interest and specifies how it should be reported. As IMRF already reports majority equity interests as investments per GASB Statement No. 72, *"Fair Value Measurement and Application"*, there is no impact to its financial statements.

D. DEPOSITS AND INVESTMENT RISK DISCLOSURES

1. DEPOSITS

Custodial credit risk for deposits is the risk that, in the event of a financial institution failure, IMRF's deposits may not be returned. Cash held in non-investment-related bank account is neither insured nor collateralized for amounts in excess of $250,000 by the Federal Deposit Insurance Corporation (FDIC). These deposits are not required to be collateralized by statute and there is no related deposit policy for custodial risk. Cash is swept daily into an investment account. Withdrawals are made daily to fund necessary business expenses. The timing of the withdrawals may create a negative cash balance. This is due to the payment on the last business day in December of each year, the following year's January 1 benefit payments. These payments are recorded as a prepaid as of December 31 in the financial statements. Cash equivalents are typically short-term investments that have high credit quality and are highly liquid.

These assets are under the custody of the Northern Trust Company. The Northern Trust Company has an AA Long Term Deposit/Debt rating by Standard & Poor and an Aa2 rating by Moody.

	2018	2017
Carrying amounts at December 31		
Cash and cash equivalents	$ 1,257,209	$ 1,542,479
Bank balances at December 31		
Bank balances	$ 193,455	$ 244,302
Amount exposed to custodial credit risk		
Cash balance held with investment manager exposed to custodial credit risk	$ 901,433	$ 909,114

2. INVESTMENT POLICIES, ASSET ALLOCATION, AND MONEY-WEIGHTED RATE OF RETURN

The Illinois Pension Code prescribes the "Prudent Man Rule" as IMRF's investment authority, effective August 25, 1982. This rule requires IMRF to make investments with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an entity of like character with like aims. Within the "prudent man" framework, the Board of Trustees adopts investment guidelines for IMRF Investment Managers, which are included within their respective Investment Management Agreements.

The "Investments" Section contains a summary of these guidelines. By statute all investments are held in the name of IMRF or in the name of a nominee created for the express purpose of securities registration.

IMRF's policy in regard to the allocation of invested assets is established and may be amended by the Board. It is the policy of the Board to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Board's adopted asset allocation as of December 31, 2018.

	Asset Class					
	U.S. equities	International equities	Fixed income	Real estate	Alternative investments	Short term
Target	37%	18%	28%	9%	7%	1%

For the year ended December 31, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was a negative 4.30%. For the year ended December 31, 2017 it was 15.93%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

3. INVESTMENT SUMMARY

The following table presents a summary of the Fund's investments by type at December 31, 2018 and 2017:

	2018	2017
U.S. government & agency fixed income	$3,433,644,294	$3,097,234,458
U.S. corporate fixed income	3,285,130,878	2,984,621,123
U.S. fixed income funds	3,289,209,657	3,320,265,684
Foreign fixed income securities	778,452,892	819,506,083
Foreign fixed income funds	562,562,404	584,997,304
U.S. equities	11,173,622,777	11,891,805,326
U.S. equity funds	4,066,565,206	5,716,887,875
Foreign equities	4,251,576,651	5,158,350,138
Foreign equity funds	2,690,377,582	3,121,476,511
Foreign currency forward contracts	(1,995,250)	(1,093,774)
Pooled short-term investment funds	658,977,986	649,548,581
Real estate	2,756,158,340	2,550,292,616
Private equity	1,559,208,716	1,312,453,792
Absolute return funds	661,644	2,937,784
Swaps	(249,787)	(502,363)
Options	(1,177,008)	803,892
Other	8,235,807	5,215,242
Total investments at fair value	**$38,510,962,789**	**$41,214,800,272**

Short-term securities include commercial paper or notes having a maturity of less than 90 days. Pooled short-term investment funds are commingled funds managed by Northern Trust. Under the terms of the investment agreement for these funds, Northern Trust may invest in a variety of short-term investment securities. Alternative investments include commingled funds and separate accounts that invest in private equity and absolute return funds.

There are no individual investments held by IMRF that represent 5% or more of the Fund's fiduciary net position or the investment portfolio at year-end. As of December 31, the following lists IMRF's holdings in index funds. The NT Collective U.S. Marketcap Equity Index Fund and the NT Collective EAFE Index Fund do represent greater than 5% of fiduciary net position for each year end.

	2018	2017
MFB NT Collective Aggregate Bond Index Fund	$ 1,663,255,569	$ 1,662,481,630
BlackRock US Debt Index Fund	1,594,104,141	1,592,890,233
NT Collective U.S. Marketcap Equity Index Fund	2,515,871,313	3,570,280,886
NT Collective EAFE Index Fund	1,972,067,710	2,271,467,040

4. CUSTODIAL CREDIT RISK FOR INVESTMENTS

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, IMRF will not be able to recover the value of investments or collateral securities that are in the possession of an outside party. As of December 31, the following investments were uninsured and unregistered, with securities held by the counterparty or by its trust department or agent, but not in the Fund's name:

	2018	2017
Investments in foreign currency	$ 12,261,095	$ 3,709,517

5. CONCENTRATION OF CREDIT RISK DEBT SECURITIES

The debt security portfolios are managed by professional investment management firms. These investment management firms are required to maintain diversified portfolios. Each investment manager must comply with risk management guidelines individually assigned to them as part of their Investment Management Agreement.

The total debt securities portfolio is managed using the following general guidelines adopted by the IMRF Board of Trustees:

A. Bonds, notes, or other obligations of indebtedness issued or guaranteed by the U.S. government, its agencies, or instrumentalities are permissible investments and may be held without restriction.

B. The average credit quality of the total portfolio must be investment grade.

C. Debt obligations of any single U.S. corporation shall generally be limited to a maximum of 5% of the total portfolio at market value.

D. Generally, no more than 30% of a manager's assets at market value may be invested in securities rated below investment grade at the time of purchase. Investment managers using high yield disciplines will not be subject to this restriction.

E. Debt obligations of any U.S. industry shall generally be limited to a maximum of 25% of the total portfolio at market value.

F. Bonds or other debt obligations of foreign countries and corporations payable in U.S. and in non-U.S. funds are authorized but, in general, will not exceed 15% of the portfolio.

Quality Rating

	2018	2017
Corporate and International		
AAA	$261,545,747	$265,421,436
AA	284,099,560	271,926,626
A	921,005,868	779,539,880
BBB	1,211,643,796	1,187,602,569
BB	675,519,636	665,681,057
B	329,578,078	307,500,450
CCC	34,848,048	51,490,827
CC	1,402,699	1,730,857
C	1,393,147	959,802
D	1,480,168	2,528,903
Not Rated	107,326,634	72,062,441
Government and Agencies		
Agencies	2,048,949,682	1,479,710,852
AAA	389,283,941	473,095,545
AA	1,210,527,143	1,323,580,511
A	15,438,425	14,240,138
BBB	3,185,492	3,745,957
Not Rated	-	543,813
Fixed Income Funds		
Index	3,851,772,061	3,905,262,988
Total	**$11,349,000,125**	**$10,806,624,652**

The "Agencies" caption in the above table does not have a specific credit quality rating since they were not covered by the rating agencies. Typically these securities have at least an AA credit quality rating. The U.S. fixed income fund had an average credit quality rating of AA for 2018 and 2017. The international fixed income fund had an average quality rating of B for 2018 and 2017.

6. INTEREST RATE RISK

IMRF manages its exposure to fair value losses arising from interest rate risk by diversifying the debt securities portfolio and maintaining the debt securities portfolio at an effective duration range between 80% and 120% of the benchmark index.

Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates. It uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. The effective duration measures the sensitivity of market price to parallel shifts in the yield curve. IMRF benchmarks its debt security portfolio to the Barclays Aggregate Bond Index. At December 31, 2018 and December 31, 2017, the effective duration of the Barclays Aggregate Bond Index was 5.79 and 5.98, respectively. At the same points in time, the effective duration of IMRF debt securities portfolio was 4.67 and 3.65, respectively.

Investment	2018 Fair Value	Effective Weighted Duration Rate	2017 Fair Value	Effective Weighted Duration Rate
U.S. Corporate	$ 3,285,130,878	4.23	$ 2,984,621,123	4.72
U.S. Government & Agencies	3,433,644,294	6.65	3,097,234,458	6.60
U.S. Fixed Income Funds	3,289,209,657	3.63	3,320,265,684	0.08
International	778,452,892	5.28	819,506,083	5.42
International Fixed Income Fund	562,562,404	0.40	584,997,304	0.36
Total	**$ 11,349,000,125**	**4.67**	**$ 10,806,624,652**	**3.65**

7. FOREIGN CURRENCY RISK

The international portfolio is constructed on the principles of diversification, quality, growth, and value. Country exposure is limited to 25% or two times the benchmark weighting at fair value. Risk of loss arises from changes in currency exchange rates. International managers may also engage in transactions to hedge currency at their discretion. Currency trading may not be used for speculative purposes. The following represents IMRF's holdings by currency in international equity and fixed income holdings:

	2018	2017
Foreign Equities		
Australian dollar	$ 145,344,011	$ 110,746,230
Brazilian real	93,186,352	102,150,530
British pound sterling	605,591,004	722,554,758
Canadian dollar	154,761,429	186,940,365
Chilean peso	7,261,045	10,647,987
Colombian peso	731,561	1,300,492
Czech koruna	5,301,675	9,671,720
Danish krone	64,464,495	81,653,207
Euro	1,216,667,708	1,331,136,125
Hong Kong dollar	322,706,440	354,114,068
Hungarian forint	5,339,313	9,410,977
Indian rupee	59,596,304	115,739,734
Indonesian rupiah	28,266,593	36,566,205
Japanese yen	619,139,030	865,678,535
Malaysian ringgit	6,001,393	8,933,418
Mexican peso	41,917,972	45,346,112
New Israeli shekel	9,330,433	11,483,819
New Taiwan dollar	87,231,751	95,840,111
New Zealand dollar	13,872,018	8,542,810
Norwegian krone	35,688,633	49,979,125
Philippine peso	1,208,977	2,493,024
Polish zloty	7,370,954	10,946,860
Qatari riyal	706,686	1,796,131
Singapore dollar	39,758,150	55,343,799
South African rand	24,996,565	44,454,428
South Korean won	110,766,950	186,053,821
Swedish krona	76,216,336	109,393,348
Swiss franc	225,287,990	287,675,126
Thai baht	25,864,920	30,466,856
Turkish lira	7,803,122	38,013,021
United Arab Emirates dirham	4,260,247	3,645,446
United States dollar	2,206,020,482	2,533,589,301
Total Foreign Equities	**$ 6,252,660,539**	**$ 7,462,307,489**

	2018	2017
Foreign Fixed Income		
Argentine peso	$ 7,725,754	$ 8,222,883
Brazilian real	16,584,652	20,527,678
British pound sterling	1,199,671	1,539,493
Canadian dollar	-	1,965,355
Chilean peso	2,147,225	1,016,583
Colombian peso	7,489,228	8,931,295
Czech koruna	5,471,908	2,597,363
Euro	692,023	-
Hungarian forint	4,299,408	-
Indian rupee	947,162	-
Indonesian rupiah	9,033,214	9,256,558
Japanese yen	4,748,141	4,709,108
Kazakhstan tenge	297,135	-
Malaysian ringgit	3,002,018	9,778,794
Mexican peso	19,554,654	28,775,060
New Zealand dollar	-	15,819,056
Norwegian krone	-	8,435,991
Peruvian nuevo sol	3,457,735	3,032,261
Polish zloty	5,473,895	7,392,753
Romanian new leu	2,109,596	2,036,628
Russian ruble	20,626,464	19,512,304
South African rand	7,804,750	14,954,378
Swedish krona	443,922	-
Thai baht	6,016,734	2,139,354
Turkish lira	5,441,678	8,694,797
United States dollar	1,206,448,329	1,224,460,947
Uruguayan peso	-	704,748
Total Foreign Fixed Income	**1,341,015,296**	**1,404,503,387**
Total	**$ 7,591,675,835**	**$ 8,866,810,876**

E. SECURITIES LENDING PROGRAM

The IMRF securities lending program is authorized by the IMRF Board of Trustees. IMRF lends securities (both equity and fixed income) to securities firms on a temporary basis through its agent, The Northern Trust. There are no restrictions on the amount of securities that may be lent. IMRF receives fees for all loans and retains the right to all interest and dividend payments while the securities are on loan. All securities are loaned versus collateral that may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned versus collateral valued, subject to de-minimus rules, at 102% of the fair value of the securities plus any accrued interest (105% for non-U.S. securities). As the fair value of the securities loaned changes, the borrower must adjust the collateral accordingly. IMRF or the borrower has the right to close the loan at any time. The average term of overall loans was 87 days as of December 31, 2018, and 88 days as of December 31, 2017. When the loan closes, the borrower returns the securities loaned to IMRF, and IMRF returns the associated collateral to the borrower. IMRF cannot pledge or sell the non-cash collateral unless the borrower fails to return the securities borrowed.

The Northern Trust pools all collateral received from securities lending transactions and invests any cash collateral. IMRF holds a prorated share of the collateral provided by the borrowers of its securities. The cash collateral is shown on IMRF's financial statements. Cash collateral is invested in a short-term investment pool, which had an interest sensitivity of 27 days as of December 31, 2018, and 27 days as of December 31, 2017. Cash collateral may also be invested separately in "term loans," in which case the investments match the term of the loan. These loans can be terminated on demand by either lender or borrower.

Indemnification pertains to the situation in which a client's securities are not returned due to the insolvency of a borrower and The Northern Trust has failed to live up to its contractual responsibilities relating to the lending of those securities. The Northern Trust's responsibilities include performing appropriate borrower and collateral investment credit analyses, demanding adequate types and levels of collateral and complying with applicable Department of Labor and Federal Financial Institutions Examination Council regulations concerning securities lending. During 2018 and 2017, there were no violations of legal or contractual provisions and no borrower or lending agent default losses to the securities lending agent. There are no dividends or coupon payments owing on the securities lent. IMRF had no credit risk as a result of its securities lending program as the collateral held exceeded the fair value of the securities lent.

Securities lent are included in the Statements of Fiduciary Net Position. The fair value of collateral received includes cash collateral of $248,571,446 and $350,734,959 at December 31, 2018 and December 31, 2017, respectively.

Loans outstanding as of	December 31, 2018	December 31, 2017
Market value of securities loaned	$ 1,402,919,885	$ 1,433,990,390
Market value of collateral received	$ 1,448,535,964	$ 1,472,575,860

F. DERIVATIVES

IMRF's investment managers may enter into derivative transactions as permitted by their guidelines. A derivative financial instrument is an investment whose payoff depends upon the value of an underlying asset such as bond or stock prices, a market index, or commodity prices. Derivative financial instruments involve, to varying degrees, credit risk and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to terms. IMRF's investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. Market risk is the possibility that a change in interest or currency rates will cause the value of a financial instrument to decrease or become more costly to settle. The market risk associated with derivatives, the prices of which are constantly fluctuating, is regulated by imposing strict limits as to the types, amounts, and degree of risk that investment managers may undertake. Senior investment management approves these limits and the risk positions of the investment managers are reviewed on a periodic basis to monitor compliance with the limits. IMRF does not purchase derivatives with borrowed funds.

During the year, IMRF's derivative investments included foreign currency forward contracts, financial futures, options, and swaps. Foreign currency forward contracts are used to hedge against the currency risk in IMRF's foreign stock and fixed income security portfolios. The remaining derivative financial instruments are used to improve yield, adjust the duration of the fixed income portfolio, or to hedge changes in interest rates.

Foreign currency forward contracts are agreements to buy or sell a specific amount of a specific currency at a specified delivery or maturity date for an agreed upon price. As the fair value of the underlying currency varies from the original contract price, IMRF records an unrealized gain or loss. The counterparties to the foreign currency forward contracts are banks which are rated A or above by rating agencies. The fair value of forward currency contracts outstanding at December 31, 2018 and December 31, 2017 is as follows:

Fair Value as of	December 31, 2018	December 31, 2017
Pending Foreign Exchange Purchases		
Argentine peso	$ 814,688	$ -
Australian dollar	35,926,812	1,327,427
Brazilian real	22,023,872	11,508,271
British pound sterling	21,364,520	25,726,041
Canadian dollar	35,205,133	37,444,036
Chilean peso	3,239,480	3,622,588
Chinese yuan renminbi	36,058	-
Colombian peso	1,318,569	1,903,876
Czech koruna	6,306,106	8,736,751
Danish krone	7,825,396	7,918,197
Euro	25,834,661	87,496,172
Hong Kong dollar	10,964,600	4,957,837
Hungarian forint	-	4,951,435
Indian rupee	3,358,508	1,981,503
Indonesian rupiah	11,781,076	12,635,740
Japanese yen	14,744,399	14,757,667
Mexican peso	3,837,387	3,355,751
New Israeli shekel	1,153,721	2,090,797
New Romanian leu	-	2,107,816
New Taiwan dollar	101,765	-
New Zealand dollar	12,553,298	3,179,122
Norwegian krone	13,303,999	950,751
Peruvian nuevo sol	-	496,121
Polish zloty	3,672,297	4,126,967
Russian ruble	1,163,911	252,586
Singapore dollar	9,152,244	2,088,634
South African rand	2,305,998	-
South Korean won	353,654	-
Swedish krona	1,504,590	10,541,247
Swiss franc	19,244,790	4,957,352
Thai baht	4,215,251	2,672,964
Turkish lira	438,221	1,704,944
United States dollar	239,684,210	268,494,773
Total Purchases	**$ 513,429,214**	**$ 531,987,366**

Fair Value as of	December 31, 2018	December 31, 2017
Pending Foreign Exchange Sales		
Argentine peso	$ (3,161,318)	$ (4,332,395)
Australian dollar	(9,496,034)	(16,901,076)
Brazilian real	(2,891,231)	-
British pound sterling	(12,062,033)	(375,971)
Canadian dollar	(2,662,895)	(17,486,114)
Chilean peso	-	(2,059,454)
Chinese yuan renminbi	-	(3,895,567)
Colombian peso	-	(748,003)
Danish krone	(11,123,594)	(5,056,872)
Euro	(74,105,137)	(61,013,725)
Hong Kong dollar	(17,125,160)	(9,039,559)
Hungarian forint	(1,713,744)	-
Indonesian rupiah	(766,739)	-
Japanese yen	(41,012,586)	(65,331,812)
Malaysian ringgit	(1,569,762)	(1,725,088)
Mexican peso	(2,648,020)	(7,603,360)
New Israeli shekel	(3,985,038)	(1,248,918)
New Romanian leu	(117,737)	(4,133,376)
New Taiwan dollar	-	(4,273,789)
New Zealand dollar	(2,911,187)	(3,131,465)
Norwegian krone	(3,863,084)	(6,326,667)
Peruvian nuevo sol	(4,246,902)	(292,742)
Philippine peso	(9,389,743)	(10,037,988)
Polish zloty	(473,812)	(2,126,798)
Russian ruble	(2,081,949)	(1,601,237)
Singapore dollar	(1,004,298)	(424,348)
South African rand	-	(8,174,610)
South Korean won	(2,869,904)	(3,186,077)
Swedish krona	(12,404,194)	(17,375,132)
Swiss franc	(17,647,693)	(17,417,407)
Turkish lira	(933,045)	-
United States dollar	(273,157,625)	(257,761,590)
Total Sales	**(515,424,464)**	**(533,081,140)**
Net Unrealized (Loss)	**$ (1,995,250)**	**$ (1,093,774)**

Financial futures are similar to forward contracts, except futures contracts are standardized and traded on organized exchanges. As the market value of the underlying hedging assets vary from the original contract price, a gain or loss is recognized and is settled through the clearinghouse. Financial futures represent an off-balance sheet obligation as there are no balance sheet assets or liabilities associated with those contracts. The contractual amounts of future contracts outstanding at December 31, 2018 and December 31, 2017 are as follows:

Fair Value as of	December 31, 2018		December 31, 2017		Change
	Amount	Number of Contracts	Amount	Number of Contracts	Amount
Fixed income derivative futures sold	$210,416,894	1,075	$117,201,942	542	$93,214,952
Fixed income derivative offset futures purchased	210,416,894	1,075	117,201,942	542	93,214,952
Fixed income derivative offset futures sold	257,728,404	1,802	306,811,205	2,382	(49,082,801)
Fixed income derivative futures purchased	257,728,404	1,802	306,811,205	2,382	(49,082,801)
Equity derivatives futures purchased	$23,799,400	-	$73,590,000	-	$(49,790,600)
Equity derivatives offsets futures sold	23,799,400	190	73,590,000	550	(49,790,600)
Cash and cash equivalent derivative futures sold	$48,146,275	211	$492,286,875	2,020	$(444,140,600)
Cash and cash equivalent derivative offset futures purchased	48,146,275	211	492,286,875	2,020	(444,140,600)
Cash and cash equivalent derivative offset futures sold	566,614,575	2,327	-	-	566,614,575
Cash and cash equivalent derivative futures purchased	566,614,575	2,327	-	-	566,614,575

Contractual amounts, which represent the fair value of the underlying assets of the derivative contracts, are often used to express the volume of these positions. Such amounts do not reflect the extent to which positions may offset one another or the potential risk, which is generally a lesser amount.

Financial options are agreements that give one party the right, but not the obligation, to buy or sell a specific amount of an asset for a specified price, called the strike price, on or before a specified expiration date. As a writer of financial options, IMRF receives a premium at the outset of the agreement and bears the risk of an unfavorable change in the price of the assets underlying the option. Gains and losses on options are determined based on fair values and are recorded in the Statements of Changes in Fiduciary Net Position. The fair value (liability) of financial options outstanding at year-end December 31, 2018, and December 31, 2017 are as follows:

Fair Value as of	December 31, 2018		December 31, 2017		Change
	Amount	Notional Value	Amount	Notional Value	Amount
Financial put options	$(73,874)	$989	$646,004	$2,191	$(1,202)
Financial call options	(1,103,134)	2,628	157,888	1,672	956

Interest rate swaps are agreements between two or more parties to exchange sets of cash flows over a period of time. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty who, in turn, agrees to make return interest payments that float with some reference rate. In addition to interest rate swaps, one of IMRF's investment managers utilizes credit default swaps which add liquidity to individual credits and protect specific positions. Gains and losses on swaps are determined based on fair values and are recorded in the Statements of Changes in Fiduciary Net Position. The fair value (liability) of swaps outstanding at December 31, 2018, and December 31, 2017 are as follows:

Fair Value as of	December 31, 2018	December 31, 2017	Change
Swaps, gain/(loss)	$(249,788)	$(502,363)	$252,575

As of December 31, 2018				Change in Fair Value
Type of Swap	**Notional Value**	**Fair Value**	**Counterparty Credit Rating**	**Amount**
Credit Default Swap	$ 123,431,000	$ 670,129	A	$ 642,210
Credit Default Swap	123,431,000	(230,146)	A	(230,146)
Credit Default Swap	11,500,000	-	NR*	(908,700)
Credit Default Swap	11,500,000	(398,022)	NR*	1,324,093
Interest Rate Swap	1,758,033,700	3,843,262	A	3,227,644
Interest Rate Swap	1,758,033,700	(4,370,443)	A	(4,037,958)
Interest Rate Swap	609,678,000	413,943	NR*	413,943
Interest Rate Swap	609,678,000	(178,511)	NR*	(178,511)
Total	**$ 5,005,285,400**	**$ (249,788)**		**$ 252,575**

As of December 31, 2017			
Type of Swap	**Notional Value**	**Fair Value**	**Counterparty Credit Rating**
Credit Default Swap	$1,664,000	$27,919	A
Credit Default Swap	1,664,000	-	A
Credit Default Swap	60,360,000	908,700	NR*
Credit Default Swap	60,360,000	(1,722,115)	NR*
Interest Rate Swap	113,694,700	615,618	A
Interest Rate Swap	113,694,700	(332,485)	A
Total	**$351,437,400**	**$(502,363)**	

NR = Not rated.*

G. FUTURE INVESTMENT COMMITMENTS

At December 31, 2018 and December 31, 2017, IMRF had future commitments for additional contributions to real estate and alternative investment managers totaling $2,752,538,633 and $2,058,264,231, respectively. This includes unfunded commitments to directly owned real estate managers totaling $133,002,705 and $188,856,174 as of December 31, 2018 and December 31, 2017, respectively.

H. POST-EMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

1. GENERAL INFORMATION ABOUT THE OPEB PLAN

A. PLAN DESCRIPTION

IMRF, as an employer, administers a single-employer defined benefit healthcare plan ("Retiree Health Plan") under the provisions of ILCS Chapter 215, Article 5, Section 367j. The plan is set up as a pay as you go plan. As such, there are no assets accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

B. BENEFITS PROVIDED

As required by the statutes, the Retiree Health Plan provides lifetime health and dental care insurance for eligible retirees and their spouses through IMRF's group health insurance plan, which covers both active and retired members. Benefit subsidy provisions have been established by IMRF's Board of Trustees that cover a percentage of the retiree's insurance premiums from the date of retirement to the date the retiree becomes eligible for Medicare. These benefit subsidy provisions can be modified or terminated at the sole discretion of the IMRF Board. Except for any eligible subsidy, retirees must pay the entire blended insurance premium for their coverage. The amount of the subsidy varies based upon the retiree's years of service with IMRF and are as follows:

Years of Service	IMRF Percent	Retiree Percent
Less than 10	0.0%	100.0%
10-14	20.0%	80.0%
15-19	27.5%	72.5%
20	35.0%	65.0%
21	36.5%	63.5%
22	38.0%	62.0%
23	39.5%	60.5%
24	41.0%	59.0%
25	42.5%	57.5%
26	44.0%	56.0%
27	45.5%	54.5%
28	47.0%	53.0%
29	48.5%	51.5%
30 and up	50.0%	50.0%

C. EMPLOYEES COVERED BY THE BENEFIT TERMS

The following employees were covered by the benefit terms at December 31, 2018, and December 31, 2017:

	2018	2017
Inactive employees or beneficiaries currently receiving benefits	17	15
Inactive employees entitled to but not yet receiving benefits	0	0
Active employees	196	202
Total	**213**	**217**

2. TOTAL OPEB LIABILITY

IMRF's total OPEB liability of $1,961,967 and $2,244,234 was measured as of December 31, 2018, and December 31, 2017 respectively, and was determined by an actuarial valuation as of those dates.

The total OPEB liability in the December 31, 2018, and December 31, 2017, actuarial valuations was determined using the following actuarial assumptions and other inputs. These were applied to all periods included in the measurement unless otherwise specified.

Actuarial Cost Method	Entry-Age Normal
Discount Rate	2018 - 3.71% , 2017 – 3.31% , 2016 – 3.78%
Price Inflation	2.50%
Wage Inflation	3.25%
Salary Increases	3.39% to 10.35%, includes wage inflation
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Based on the experience study covering the three year period ending December 31, 2016, as conducted for the Illinois Municipal Retirement System.
Mortality	
Active members*	IMRF specific mortality rates with 2-dimensional, fully generational improvements using MP-2017 (base year 2015) Mortality Improvement Scale.
Retirees*	IMRF specific mortality rates with 2-dimensional, fully generational improvements using MP-2017 (base year 2015) Mortality Improvement Scale.
Health Care Trend Rates	Initial trend of 8.25% (9.00% in 2017) gradually decreasing to an ultimate trend rate of 3.50% in year 10
Aging Factors	Based on the 2013 SOA Study "Health Care Costs - From Birth to Death"

**Based on the experience study covering the three year period ending December 31, 2016 as conducted for the Illinois Municipal Retirement Fund.*

For plans that have no assets, the discount rate used is the same as the tax-exempt municipal bond rate based on an index of 20 year general obligation bonds with an average credit rating of AA as of the measurement date. For these valuations the Fidelity 20 Year Municipal GO AA Index was used.

3. CHANGES IN THE TOTAL OPEB LIABILITY

	2018	2017
Total OPEB Liability – Beginning of the Year	$2,244,234	$2,215,016
Service Cost	119,612	112,513
Interest on the Total OPEB Liability	74,519	84,042
Changes of Benefit Terms	-	-
Differences Between Expected and Actual Experience	(393,995)	(174,577)
Changes in Assumptions	23,037	103,110
Benefit Payments	(105,440)	(95,870)
Net Changes	**(282,267)**	**29,218**
Total OPEB Liability – End of the Year	**$1,961,967**	**$2,244,234**

Changes in assumptions for 2018 and 2017 reflect a change in the discount rate from 3.78% in 2016 to 3.31% in 2017 to 3.71% in 2018.

A. SENSITIVITY OF THE TOTAL OPEB LIABILITY TO CHANGES IN THE DISCOUNT RATE

The following presents the total OPEB liability of IMRF, as well as what the total OPEB Liability would be if it were calculated using a discount rate that is plus/minus one percentage point from the current discount rate:

	Total OPEB Liability					
	Current Single Discount Rate					
	1% Decrease		Assumptions		1% Increase	
	Rate	Amount	Rate	Amount	Rate	Amount
2018	2.71%	$2,072,993	3.71%	$1,961,967	4.71%	$1,852,568
2017	2.31%	2,374,137	3.31%	2,244,234	4.31%	2,115,805

B. SENSITIVITY OF THE TOTAL OPEB LIABILITY TO CHANGES IN THE HEATH-CARE COST TREND RATES

The following presents the total OPEB liability of IMRF, as well as what the total OPEB Liability would be if it were calculated using health-care cost trend rates that are plus/minus one percentage point from the current health-care cost trend rates:

	Total OPEB Liability		
		Current Health Care Cost	
	1% Decrease	Trend Rate Assumption	1% Increase
2018	$1,785,937	$1,961,967	$2,162,710
2017	2,033,623	2,244,234	2,484,861

4. OPEB EXPENSE AND DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES RELATED TO OPEB

For the years ended December 31, 2018, and December 31, 2017, IMRF recognized OPEB expense of $145,985 and $188,866 respectively. At December 31, 2018, and December 31, 2017, IMRF reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	December 31, 2018		December 31, 2017	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$488,037	$ -	$155,794
Changes in assumptions or other inputs	101,447	-	92,016	-
Total	**$101,447**	**$488,037**	**$92,016**	**$155,794**

As of December 31, 2018, the amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ending December 31	Net Deferred Outflows of Resources
2019	$ (48,146)
2020	(48,146)
2021	(48,146)
2022	(48,146)
2023	(48,146)
Thereafter	(145,860)
Total	**$ (386,590)**

As of December 31, 2017, the amounts reported as deferred outflows and inflows of resources related to OPEB that were to be recognized in OPEB expense were as follows:

Year Ending December 31	Net Deferred Outflows of Resources
2018	$ (7,689)
2019	(7,689)
2020	(7,689)
2021	(7,689)
2022	(7,689)
Thereafter	(25,333)
Total	**$ (63,778)**

I. FAIR VALUE MEASUREMENT

IMRF categorizes investments measured at fair value within the fair value hierarchy established by generally accepted accounting principles (GAAP). The hierarchy prioritizes valuation inputs used to measure the fair value of the asset or liability into three broad categories.

The inputs or methodology used for valuing the securities is not an indication of the risk associated with investing in those respective securities.

The three hierarchy categories are as follows:

Level 1: Investments reflect prices quoted in active markets for identical assets.

Level 2: Investments reflect prices that are based on a similar observable asset either directly or indirectly in an active market, and inputs in markets are not considered to be active for identical or similar assets.

Level 3: Investments reflect prices based on unobservable inputs may include situations where there is minimal, if any, market activity for the investment.

If the fair value is measured using inputs from different levels in the fair value hierarchy, the measurement is categorized based on the lowest priority level input that is significant to the valuation. The Fund's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the investment. Investments measured at fair value using the net asset value (NAV) per share (or equivalent) as a practical expedient to fair value are not classified in the fair value hierarchy; however, separate disclosures for these investments are included in this report.

Securities lending cash collateral and short-term investments consisting of money market funds, certificates of deposit, and highly liquid cash equivalents are reported at amortized cost which approximates fair value. These investments are not categorized in the fair value hierarchy.

Fixed income and equity investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets, to the extent that these securities are actively traded.

Fixed income and equity investments classified in Level 2 of the fair value hierarchy are normally valued based on price data obtained from observed transactions and market price quotations from broker dealers and/or pricing sources. Valuation estimates for service providers' internal models use observable inputs such as interest rates, yield curves, credit/risk spreads, and default rates. Matrix pricing techniques value securities based on their relationship to benchmark quoted prices. Exchange traded and over-the-counter investment derivatives are valued by independent pricing service providers, where the value is derived from underlying asset prices, reference rates, indices, or other observable inputs.

Fixed income and equity investments classified in Level 3 of the fair value hierarchy are valued using significant unobservable inputs, proprietary information, inputs that cannot be corroborated by observable market data and/or due to limited trading volume.

Alternative investments are measured at fair value using the NAV per share as a practical expedient to fair value. Investments measured at NAV are not classified in the fair value hierarchy

Investments measured at amortized cost consist of IMRF's Short-Term Investment Funds (STIF) account offered though the Funds custodial bank. These are not included in the fair value hierarchy and are presented only to show comparability between the Fair Value tables and the amounts shown in the Schedules of Changes in Fiduciary Net Position for Total investments.

The following tables summarize the valuation of IMRF's investments by the fair value hierarchy levels and investments measured at NAV as of December 31, 2018, and December 31, 2017.

INVESTMENTS AND DERIVATIVE INSTRUMENTS MEASURED AT FAIR VALUE

	As of December 31, 2018				
	Fair Value Measurements Using				
	Fair Value	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Investments Measured at NAV
U.S. government & agency fixed income	$ 3,433,644,294	$ 1,407,029,227	$ 1,918,012,693	$ 108,602,374	$ -
U.S. corporate fixed income	3,285,130,878	-	3,033,677,181	251,453,697	-
U.S. fixed income funds	3,289,209,657	-	1,663,255,569	-	1,625,954,088
Foreign fixed income funds	1,341,015,296	-	757,832,437	20,620,455	562,562,404
Fixed income	**11,349,000,125**	**1,407,029,227**	**7,372,777,880**	**380,676,526**	**2,188,516,492**
U.S. equities	11,173,622,777	11,173,215,230	59,864	347,683	-
U.S. equity funds	4,755,858,900	4,755,858,900	-	-	-
Foreign equities	4,251,576,651	4,251,270,314	-	306,337	-
Foreign equity funds	2,001,083,888	2,001,083,888	-	-	-
Equity	**22,182,142,216**	**22,181,428,332**	**59,864**	**654,020**	**-**
Real estate	**2,756,158,340**	**-**	**-**	**815,914,015**	**1,940,244,325**
Private equity	**1,559,132,880**	**-**	**-**	**-**	**1,559,132,880**
Absolute return funds	**737,480**	**-**	**-**	**-**	**737,480**
Options	**(1,177,008)**	**(1,177,008)**	**-**	**-**	**-**
Swaps	**(249,787)**	**-**	**(249,787)**	**-**	**-**
Investments measured at fair value	**$ 37,845,744,246**	**$ 23,587,280,551**	**$ 7,372,587,957**	**$ 1,197,244,561**	**$ 5,688,631,177**
Investments measured at amortized cost	**665,218,543**				
Total	**$ 38,510,962,789**				

	Investments measured at Net Asset Value (NAV)			
Year Ended December 31, 2018	Fair Value	Unfunded Commitments	Redemption Frequency (if currently eligible)	Redemption Notice Period
U.S. fixed income funds	$ 1,625,954,088	$ -	Daily	0-2 Days
Foreign fixed income	562,562,404	-	Daily	30 Days
Commingled Fixed Income Funds Total	**2,188,516,492**	**-**		
Real estate	**1,940,244,325**	**1,193,444,467**	**Quarterly, Not Eligible**	**30-60 days, N/A**
Private equity	**1,559,132,880**	**1,242,927,449**	**Quarterly, Not Eligible**	**60 days, N/A**
Absolute return funds	**737,480**	**-**	**Monthly, Quarterly**	**Notice in Place**
Investments measured at NAV	**$ 5,688,631,177**	**$ 2,436,371,915**		

INVESTMENTS AND DERIVATIVE INSTRUMENTS MEASURED AT FAIR VALUE

	As of December 31, 2017				
	Fair Value Measurements Using				
	Fair Value	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Investments Measured at NAV
U.S. government & agency fixed income	$ 3,097,234,458	$ 1,240,960,610	$ 1,807,483,383	$48,790,465	$ -
U.S. corporate fixed income	2,984,621,123	-	2,929,802,802	54,818,321	-
U.S. fixed income funds	3,320,265,684	-	1,662,481,630	-	1,657,784,054
Foreign fixed income funds	1,404,503,387	-	789,980,616	29,525,467	584,997,304
Fixed Income Total	**10,806,624,652**	**1,240,960,610**	**7,189,748,431**	**133,134,253**	**2,242,781,358**
U.S. equities	11,891,805,326	11,891,451,276	26,939	327,111	-
U.S. equity funds	6,534,407,035	2,806,167	3,570,280,886	-	2,961,319,982
Foreign equities	5,158,350,138	5,157,024,557	1,178,052	147,529	-
Foreign equity funds	2,303,957,351	32,490,311	2,271,467,040	-	-
Equity Total	**25,888,519,850**	**17,083,772,311**	**5,842,952,917**	**474,640**	**2,961,319,982**
Real Estate Total	**2,550,292,616**	**-**	**-**	**659,018,846**	**1,891,273,770**
Private Equity Total	**1,312,453,792**	**-**	**-**	**-**	**1,312,453,792**
Absolute Return Funds Total	**2,937,784**	**-**	**-**	**-**	**2,937,784**
Options Total	**803,892**	**803,892**	**-**	**-**	**-**
Swaps Total	**(502,363)**	**-**	**(502,363)**	**-**	**-**
Investments measured at fair value	**$ 40,561,130,223**	**$18,325,536,813**	**$13,032,198,985**	**$792,627,739**	**$8,410,766,686**
Investments measured at amortized cost	**653,670,049**				
Total	**$ 41,214,800,272**				

	Investments measured at Net Asset Value (NAV)			
Year Ended December 31, 2017	Fair Value	Unfunded Commitments	Redemption Frequency (if currently eligible)	Redemption Notice Period
U.S. fixed income funds	$ 1,657,784,054	$ -	Daily	0-2 Days
Foreign fixed income	584,997,304	-	Daily	30 Days
Commingled Fixed Income Funds Total	**2,242,781,358**	**-**		
U.S. equity funds	2,961,319,982	-	Daily	0-15 Days
Commingled Equity Funds Total	**2,961,319,982**	**-**		
Real estate	**1,891,273,770**	**1,240,706,466**	**Quarterly, Not Eligible**	**60 days, N/A**
Private equity	**1,312,453,792**	**848,013,201**	**Quarterly, Not Eligible**	**N/A**
Absolute return funds	**2,937,784**	**-**	**Monthly, Quarterly**	**Notice in Place**
Investments measured at NAV	**$ 8,410,766,686**	**$ 2,088,719,667**		

1. INVESTMENTS MEASURED AT NET ASSET VALUE

Commingled Fixed Income Funds. This type includes fixed income funds that are considered to be commingled in nature. The fair value of the investments in this type have been determined using the NAV per share (or equivalent) of the Fund's ownership interest in the partners' capital at the end of the period, based upon the fair value of the underlying investments. Overall, IMRF's strategy for fixed income investments is to provide stable income and to diversify the equity market risk in the portfolio. The fixed income portfolio's objective is to achieve a total return that exceeds the total return of the Bloomberg Barclays U.S. Aggregate Bond Index net of fees. IMRF's investments in fixed income commingled funds essentially have the same objective.

Commingled Equity Funds. This type includes domestic equity funds and an international equity fund that are considered to be commingled in nature. The fair value of the investments in this type have been determined using the NAV per share (or equivalent) of the Fund's ownership interest in the partners' capital at the end of the period, based upon the fair value of the underlying investments. Overall, IMRF's strategy for domestic equities is to earn an equity risk premium to enhance the long-term returns of the Fund. The domestic equity portfolio's objective is to achieve a total return that exceeds the total return of the Russell 3000 Index net of fees. IMRF's investments in equity commingled funds essentially have the same objective.

Real Estate Funds. This type includes open-ended commingled funds, commingled close-ended funds and a commingled closed-ended fund of funds. The fair value of the investments in this type have been determined using the NAV per share (or equivalent) of the Fund's ownership interest in the partners' capital at the end of the period based upon the fair value of the underlying investments. The open-ended commingled funds are generally eligible for redemption on a quarterly basis. The closed-ended funds are not eligible for redemption. Distributions received as underlying investments within the fund are liquidated over the term of the fund, which is typically 7 to 12 years. IMRF strategy for investing in real estate is to provide diversification, inflation protection, and income generation in the investment portfolio. The real estate portfolio's objective is to achieve a total return that exceeds the return of the NCREIF gross of fees (ODCE) Index over a rolling three year period. The global real estate program invests capital in private and public real estate debt and equity markets in order to achieve the investment objectives. The role of public real estate is to provide diversification, income and liquidity. The role of private real estate is to provide diversification, inflation protection and return enhancement. Private market real estate investments will be diversified among various return strategies including core, value-add and opportunistic in U.S. and non-U.S. markets.

Private Equity Funds. This type consists of private equity separate accounts with underlying partnerships, private equity fund of funds, direct limited partnership investments, and five hedge fund side pockets. The fair value of the investments in this type have been determined using the NAV per share (or equivalent) of the Funds' ownership interest in the partners' capital at the end of the period based upon the fair value of the underlying investments. Private equity investments are not eligible for redemption. Distributions received as underlying investments within the fund are liquidated over the term of the partnership, which is typically 7 to 12 years. The hedge fund of funds is eligible for redemption at any time, subject to the redemption constraints of the underlying investments. IMRF's strategy for alternative investments is to diversify the Fund's assets and enhance investment portfolio return through long-term capital appreciation. Private Equity is one component of this portfolio investment strategy. The alternatives investment portfolio's objective is to achieve an annualized return of 9%. The alternative investment asset class can encompass different and distinct asset categories within U.S. and non-U.S. markets. The investment objective is to generate long-term returns in a diversified manner. It generally consists of limited partnerships in which IMRF commits a fixed amount that the general partner will invest over several years. The partnership structure may cover periods of 10 years or more, as such the alternative asset class is not structured to provide short term cash flow for the Fund.

J. RESERVES

IMRF maintains several reserves as required by the Illinois Pension Code and Board policy. All reserves are fully funded with the exception of some individual employer retirement reserves. These reserves do not equal the present value of expected retirement benefits for all employers. In 2018 the present value of expected retirement benefits exceeded the retirement reserves for all employers combined by $6,557,668,929. In 2017 the present value of expected retirement benefits exceeded the retirement reserves for all employers combined by $772,779,904.

These reserves are explained in the Illinois Pension Code, Section 7-202 through 208.

	2018	2017
Member Contribution Reserve		
Balance at December 31	**$ 7,141,346,061**	**$ 6,924,855,255**
Annuity Reserve		
Balance at December 31	**24,106,296,051**	**22,007,921,864**
Employer Reserves		
Retirement contribution reserve	7,457,203,059	12,438,546,093
Earnings and experience reserve	17,386,015	5,913,539
Supplemental retirement benefit	1,616,810	1,235,642
Pooled death benefit reserve	17,035,176	20,219,777
Pooled disability benefit reserve	10,187,231	13,314,324
Balance at December 31, as restated	**$ 7,503,428,291**	**$ 12,479,229,375**

** Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pension*

K. OTHER NOTES

1. CAPITAL ASSETS

Capital assets are recorded at their cost at the time of acquisition. Depreciation and amortization are computed using the straight-line method over the estimated useful life of the related asset. The estimated useful lives are 1) furniture: ten years; 2) equipment: five to ten years; 3) internally developed software: six years; and 4) automobiles: four years.

	Year ended December 31, 2018			
	Beginning Balance	Additions	Deletions	Ending Balance
Capital Assets				
Leasehold improvements	854,322	52,847	-	907,169
Furniture and equipment	11,074,994	1,856,781	(182,230)	12,749,545
Software	13,359,894	-	(740)	13,359,154
Total in service	**25,289,210**	**1,909,628**	**(182,970)**	**27,015,868**
Software under development	4,789,470	8,959,090	-	13,748,560
Total ending balance	**30,078,680**	**10,868,718**	**(182,970)**	**40,764,428**
Accumulated Depreciation & Amortization				
Leasehold improvements	603,323	53,348	-	656,671
Furniture and equipment	7,562,350	756,829	(179,814)	8,139,365
Software	6,717,206	1,317,894	(740)	8,034,360
Ending balance	**14,882,879**	**2,128,071**	**(180,554)**	**16,830,396**
Capital Assets, net	**15,195,801**	**8,740,647**	**(2,416)**	**23,934,032**

	Year ended December 31, 2017			
	Beginning Balance	Additions	Deletions	Ending Balance
Capital Assets				
Leasehold improvements	703,320	151,002	-	854,322
Furniture and equipment	10,795,205	279,789	-	11,074,994
Software	13,130,467	229,427	-	13,359,894
Total in service	**24,628,992**	**660,218**	**-**	**25,289,210**
Software under development	-	4,789,470	-	4,789,470
Total ending balance	**24,628,992**	**5,449,688**	**-**	**30,078,680**
Accumulated Depreciation & Amortization				
Leasehold improvements	542,917	60,406	-	603,323
Furniture and equipment	6,423,852	1,138,498	-	7,562,350
Software	5,842,104	875,102	-	6,717,206
Ending balance	**12,808,873**	**2,074,006**	**-**	**14,882,879**
Capital Assets, net	**11,820,119**	**3,375,682**	**-**	**15,195,801**

2. PREPAID EXPENSES

	2018	2017
Prepaid administrative expenses	$ 1,860,627	$ 1,790,248
January 1 benefits charged to bank account in December	163,944,186	150,862,786
Balance at December 31	**$ 165,804,813**	**$ 152,653,034**

3. COMPENSATED ABSENCES

Annual vacation leave is earned by all employees. Upon termination, employees are eligible to receive compensation for their accrued annual leave balances. At December 31, 2018, a liability existed for accumulated annual leave calculated at the employee's December 31, 2018 pay rate in the amount of $945,602. Employees who have been continuously employed by IMRF for at least five years prior to the date of their retirement, resignation, or death will receive payment for their accumulated sick leave balance with such payment not to exceed the sum of 90 days of the employee's annual compensation. For employees who have not been employed for five continuous years, an accrued liability is calculated assuming the likelihood that they will meet the five year threshold in the future. At December 31, 2018, a liability existed for accumulated and accrued sick leave, calculated at the employee's December 31, 2018 pay rate in the amount of $2,812,832. The total leave liability of $4,150,065 and $4,187,018 as of December 31, 2018, and December 31, 2017, respectively, also includes an accrual for IMRF employer contributions and payroll taxes. These amounts are reflected on the Statements of Fiduciary Net Position in accrued expenses and benefits payable.

4. LEASE AGREEMENTS

The Fund leases its headquarters facilities at the Drake Oak Brook Plaza under an agreement with the building's management. In 2015 the Fund entered into an agreement covering the period November 1, 2016, through October 31, 2023. The lease contained an abatement clause. The Fund will amortize the abated rent, operating expenses, and real estate taxes over the period covered by the agreement. Total rental expense for 2018 and 2017 was $972,130 and $942,807, respectively.

The Fund also leases office space in Springfield for its Regional Counseling Center. In 2016 the Fund entered into an agreement covering the period November 1, 2016 through March 31, 2024. The new agreement also increased the total square footage. Total rental expense for the Springfield office for 2018 and 2017 was $68,337 and $54,721, respectively.

The minimum commitments for the remainder of these leases are as follows:

2019	$ 1,103,802
2020	1,135,956
2021	1,169,060
2022	1,203,391
2023	1,041,375
2024	17,215

5. RISK MANAGEMENT

IMRF carries commercial, business, fiduciary liability, cyber, and automobile liability insurance coverage provided by private insurance carriers. These policies limit the risk of loss from torts; theft of, damage to and destruction of assets; errors and omission; injuries to employees; and natural disasters. There have been no material insurance claims filed or paid during the last three years.

The Fund is also exposed to investment risk. This risk is limited by diversification of the portfolio, establishment and monitoring of investment policies and guidelines and monitoring of investment performance. In addition, investment consultants and fiduciary counsel monitor the Fund's activities and advise the Board of Trustees.

6. CONTINGENCIES

IMRF is a defendant in a number of lawsuits that, in management's opinion, will not have a material effect on the financial statements.

REQUIRED SUPPLEMENTARY INFORMATION*

SCHEDULE OF MONEY-WEIGHTED RATE OF RETURNS

The money-weighted rate of return is presented to provide information regarding IMRF's investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested.

Annual Money-weighted Rate of Returns, Net of Investment Expenses						
2018	2017	2016	2015	2014	2013	2012
(4.30)%	15.93%	7.84%	0.58%	6.08%	20.15%	13.81%

(Ten year trend not available)
** Unaudited; see accompanying Independent Auditor's Report*

SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS

Total OPEB Liability	2018	2017
Service Cost	$119,612	$112,513
Interest on the Total OPEB Liability	74,519	84,042
Changes of Benefit Terms	0	0
Differences Between Expected and Actual Experience	(393,995)	(174,577)
Changes of Assumptions	23,037	103,110
Health Insurance Subsidy Payments *	(105,440)	(95,870)
Net Change in the Total OPEB Liability	**(282,267)**	**29,218**
Total OPEB Liability – Beginning	**2,244,234**	**2,215,016**
Total OPEB Liability – Ending	**$1,961,967**	**$2,244,234**
Covered Employee Payroll	**$15,549,200**	**$15,627,422**
Total OPEB Liability as a Percentage of Covered Employee Payroll	**12.62%**	**14.36%**

(Ten year trend information not available due to implementation of GASB Statement No. 75 in 2018. Historical information is not available prior to fiscal year 2017.)

** Includes an adjustment for any implicit rate subsidy present in the pre-65 rates.*

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS

CHANGES OF ASSUMPTIONS

Changes of assumptions and other inputs reflect the effects of changes in the discount rate each period. The following are the discount rates used in each period:

Discount Rate	
2018	3.71%
2017	3.31%
2016	3.78%

(Ten year trend information not available due to implementation of GASB Statement No. 75 in 2018. Historical information is not available prior to fiscal year 2017.)

SUPPLEMENTARY INFORMATION

Schedule of Administrative Expenses	2018	2017
Personnel services	$ 20,385,116	$ 20,617,304
Supplies	481,153	454,588
Professional services	1,753,408	2,339,177
Occupancy and utilities	2,190,757	2,008,606
Postage and delivery	1,212,809	1,110,321
Equipment service and rental	1,317,159	943,865
Expendable equipment	942,976	223,396
Miscellaneous	1,801,643	1,266,870
Depreciation	2,128,147	2,074,006
Total	**$ 32,213,168**	**$ 31,038,133**

Schedule of Payments for Professional Services	2018	2017
Actuary	$ 600,969	$ 626,212
External auditor	325,928	698,757
Modernization consulting	165,956	93,044
Compensation and benefit consultants	120,120	326,683
Internal auditing	112,802	136,194
Medical consultant	97,364	83,147
Legal services	93,668	161,344
Other consulting	73,738	72,100
Legislative lobbying consultant	73,100	63,206
IT consultants	52,888	63,027
Hearing officer	29,536	8,407
Tax consultant	5,084	7,056
Public relations consultant	2,255	-
Total	**$ 1,753,408**	**$ 2,339,177**

Schedule of Investment Expenses	2018	2017
Investment manager fees	$ 124,899,237	$ 114,168,794
Master trustee fees	280,000	280,000
Investment consultants	1,191,019	1,176,287
Investment legal fees	497,588	335,079
Tax preparation fees	30,740	89,020
Miscellaneous	76,587	81,264
Total	**$ 126,975,171**	**$ 116,130,444**

A schedule of investment-related fees can be found in the Investments section.

Some balances have been restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions

COURAGE

IMRF's courage to innovate strengthens our ability to adapt in the future. We seek new roads and opportunities to help us improve and modernize our services so we can be the best for our members and employers. We face challenges head-on while driving forward our commitment to investing in our communities. We are brave, innovative, and focused on the path ahead.

INVESTMENTS

Callan

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February 28, 2019

The Board of Trustees
The Executive Director
Illinois Municipal Retirement Fund
2211 York Road, Suite 500
Oak Brook, IL 60523

Dear Trustees and Executive Director:

Callan is pleased to report the results of the Illinois Municipal Retirement Fund (IMRF) investment program for the calendar year 2018.

Investors' appetite for risk, while elevated for much of 2018, evaporated as the year drew to a close and wiped out positive returns for the year across many broad asset classes. Concerns over tighter monetary policy and the global withdrawal of stimulus measures, unresolved trade disputes, falling oil prices, slower global growth, and softer data in some U.S. indicators overshadowed other robust aspects of the domestic economy. The U.S. equity market, as measured by the Russell 3000 Index, declined 5.2%. International equity markets, as measured by the MSCI All Country World ex-U.S. Index, declined an even greater margin than domestic equities returning -14.2% during 2018. In a period of rising interest rates on the short end of the yield curve, the Bloomberg Aggregate Index managed to eke out the narrowest of positive returns, advancing 0.01% during 2018.

The Illinois Municipal Retirement Fund reported assets of $38.4 billion as of December 31, 2018. This represented a decrease of approximately $2.6 billion from December 31, 2017 due to investment losses and outflows for benefit payments.

The Total Fund returned -4.41% net of fees in 2018, trailing the Total Fund Benchmark of -3.12%. The Total Fund Benchmark is composed of the individual asset class benchmarks weighted in the same proportion as the target asset class allocations. On a gross of fee basis, the Total Fund ranked in the 58th percentile of Callan's Large Public Fund Sponsor Database for the one-year period, and in the 58th and 19th percentile for the trailing five- and ten-year periods, respectively. With declines impacting the major equity and fixed income asset classes during the year, the Total Fund benefited from absolute positive returns from real estate, alternative investments, and cash holdings.

The domestic equity portfolio, with a current target allocation of 37%, lost 6.3% net of fees for the year ended December 31, 2018. This return trailed the Russell 3000 Index by 1.0%. IMRF's Domestic Equity

Callan

portfolio, gross of fees, ranked at the 62nd percentile compared to other public fund domestic equity portfolios.

The IMRF international equity portfolio declined 14.4% net of fees over the one-year period, lagging the MSCI All-Country World ex-U.S. Index by 0.2%. The gross of fee return of -14.2% ranked in the 72nd percentile compared to public fund international equity peers. This asset class, which has a current target allocation of 18%, is broadly invested and includes a dedicated allocation to non-U.S. small cap and emerging markets stocks.

In a period marked by volatility in interest rates, the Fund’s fixed income portfolio returned -0.4% net of fees, underperforming the Barclays Aggregate Bond Index by 0.4%. The gross of fee return of -0.3% ranked in the 68th percentile compared to peers. The fixed income portfolio has a current target allocation of 28% and was well diversified including dedicated investments in non-core fixed income strategies.

Investment measurements and comparisons have been made using standard performance evaluation methods and results are presented in a manner consistent with the investment industry. Rates of return were determined using a time-weighted return calculation.

Sincerely,

Janet Becker-Wold

Janet Becker-Wold, CFA
Senior Vice President

NORTHERN TRUST

March 4, 2019

Board of Trustees and Executive Director
Illinois Municipal Retirement Fund
2211 York Road
Oak Brook, IL 60523-2374

To the Board of Trustees and the Executive Director

The Northern Trust Company as Master Trustee has provided detailed financial reports of all investments, receipts, disbursements, purchases and sales of securities and other transactions pertinent to the Fund for the period January 1, 2018, through December 31, 2018. Also, a statement of assets together with their fair market value was provided, showing the properties held as of December 31, 2018. The Northern Trust Company certifies that the statements contained therein are fairly presented and are true and accurate.

In addition to the custody of the assets, The Northern Trust Company provided and will continue to provide the following services as Master Trustee:

1. Receive and hold all amounts paid to the Trust Fund by the Board of Trustees.

2. Accept and deliver securities in accordance with the instructions of appointed Investment Managers.

3. Collect dividends and registered interest payments.

4. Collect matured or called securities and coupons.

5. Securities Lending.

6. Invest cash balances held from time to time in the individual investment management accounts in short term, cash equivalent securities.

7. Exercise rights of ownership in accordance with pre-described jurisdiction of stock subscriptions and conversion rights.

8. Hold securities in the name of the Master Trust or nominee form.

9. Employ agents with the consent of the Board of Trustees.

10. Provide disbursement and security fail float income.

11. Checking Accounts.

12. On-line Trust and Banking reporting.

THE NORTHERN TRUST COMPANY

By:
Kimberly A. Miller
Senior Vice President

The Northern Trust Company

50 South La Salle Street
Chicago, Illinois 60603
312-630-6000

INVESTMENT CONSULTANTS

Master Trustee

The Northern Trust Company
Kim Miller, Senior Vice President
Chicago, Illinois

Performance Evaluation

Callan Associates Inc.
Janet Becker-Wold, Principal
Denver, Colorado

Investment Consultant

Callan Associates Inc.
Janet Becker-Wold, Principal
Denver, Colorado

Investment Managers

Abbott Capital Management, LLC
New York, New York

ABRY Partners
Boston, Massachusetts

Advent Capital Management, LLC
New York, New York

AEW Capital Management, L.P.
Boston, Massachusetts

Almanac Realty Investors
New York, New York

Ares Management, LLC
London, England

Arga Investment Management, LP
Stamford, Connecticut

Arrowstreet Capital, L.P.
Cambridge, Massachusetts

Artemis Real Estate Partners
Chevy Chase, Maryland

Ativo Capital Management LLC
Chicago, Illinois

AUA Private Equity Partners
New York, New York

Aurora Investment Management
Chicago, Illinois

Baring Private Equity Asia
Central, Hong Kong

Barings Capital Management
Charlotte, North Carolina

Baring's LLC
Hartford, Connecticut

Beecken Petty O'Keefe & Company, LLC
Chicago, Illinois

BlackRock Financial Management, Inc.
New York, New York

The Blackstone Group LP
New York, New York

BMO Global Asset Management
Miami, Florida

BNY Mellon
Boston, Massachusetts

Brandes Investment Partners, L.P.
San Diego, California

Brookfield Investment Management, Inc.
Chicago, Illinois

Brown Capital Management, Inc.
Baltimore, Maryland

CBRE Global Investors
Los Angeles, California

Channing Capital Management, LLC
Chicago, Illinois

ChrysCapitol
Maharashtra, India

Clearlake Capital Group
Santa Monica, California

Cohen & Steers Capital Management, Inc.
New York, New York

Crow Holdings Capital
Dallas, Texas

Dimensional Fund Advisors
Santa Monica, California

Dodge & Cox Investment Managers
San Francisco, California

Dune Capital Management LP
New York, New York

EARNEST Partners, LLC
Atlanta, Georgia

EnCap Investments, L.P.
Houston, Texas

Estancia Capital Partners, L.P.
Scottsdale, Arizona

Fidelity Institutional Asset Management
Boston, Massachusetts

Forest Investment Associates
Atlanta, Georgia

Franklin Templeton Real Estate Advisors
New York, New York

Frontier Capital Management Co.
Boston, Massachusetts

Garcia Hamilton & Associates, L.P.
Houston, Texas

Genesis Asset Managers International, Ltd.
London, England

GIA Partners, LLC
New York, New York

GlobeFlex Capital, L.P.
San Diego, California

Glovista Investments, LLC
Jersey City, New Jersey

Goldman Sachs
New York, New York

GTIS Partners
New York, New York

Hancock Natural Resource Group, Inc.
Boston, Massachusetts

ICV Partners
New York, New York

INVESTMENT CONSULTANTS *(CONTINUED)*

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Invesco Real Estate
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Investment Counselors of Maryland, LLC
Baltimore, Maryland

LaSalle Investment Management
Chicago, Illinois

Lazard Asset Management
New York, New York

Lightspeed Venture Partners
Menlo Park, California

LM Capital Group, LLC
San Diego, California

Longfellow Investment Management Co.
Boston, Massachusetts

LongWharf Capital
Boston, Massachusetts

LSV Asset Management
Chicago, Illinois

MacKay Shields, LLC
New York, New York

Mayfield Fund
Menlo Park, California

Metis Global Partners
San Diego, California

Mondrian Investment Partners Limited
London, England

Muller & Monroe Asset Management, LLC
Chicago, Illinois

New Century Advisors, LLC
Bethesda, Maryland

New Mainstream Capital
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Northern Trust Investments, Inc.
Chicago, Illinois

Oak Street Real Estate Partners
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Pantheon Ventures, Inc.
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Piedmont Investment Advisors, LLC
Durham, North Carolina

Progress Investment Management Company
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Pugh Capital Management
Seattle, Washington

Ramirez Asset Management, Inc.
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Resolution Real Estate Advisors, LLP
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Rockwood Capital, LLC
New York, New York

Sands Capital Management, LLC
Arlington, Virginia

Security Capital Markets Group, Inc.
Chicago, Illinois

Smith Graham & Company Investment Advisors, L.P.
Houston, Texas

Starwood Capital Group
Greenwich, Connecticut

Strategic Global Advisors, LLC
Newport Beach, California

TA Associates Realty
Boston, Massachusetts

Templeton Investment Counsel, LLC
Fort Lauderdale, Florida

The Sterling Group
Houston, Texas

The Vistria Group
Chicago, Illinois

Torchlight Investors
New York, New York

True North
Maharashtra, India

Valor Equity Partners
Chicago, Illinois

Versant Venture Management LLC
Menlo Park, California

Vista Equity Partners, LLC
Austin, Texas

Western Asset Management Company
Pasadena, California

William Blair & Company
Chicago, Illinois

INVESTMENT POLICIES

The Board of Trustees, operating within the prudent man framework, has adopted the following investment objectives and guidelines. The objectives and guidelines presented here are intended to be summarizations. Specific contractual objectives and guidelines are in effect for individual investment mandates.

A. INVESTMENT OBJECTIVES

1. To diversify the investment portfolio so as to optimize investment returns.
2. To set investment and actuarial policies that assure the adequate accumulation of assets and maintain a reasonable funded status.
3. To achieve rates of return greater than the current actuarial investment assumption (7.5% for 2018, 7.25% for 2019).
4. To achieve rates of return consistent with expectations for each asset class used, without significantly changing the expected risk profile of the asset class or the investment portfolio.
5. To achieve in U.S. equities a total return that exceeds the total return of the Russell 3000 Index.
6. To achieve in international equities a total return that exceeds the total return of the Morgan Stanley Capital International All Country World Index Ex-US (MSCI ACWI-Ex U.S.).
7. To achieve in fixed income securities a total return that exceeds the total return of the Bloomberg Aggregate Bond Index.
8. To achieve in real estate investments a return that exceeds the National Council of Real Estate Investment Fiduciaries (NCREIF) Open-End Diversified Core gross of fees (ODCE) Index over a rolling three-year period.
9. To achieve in alternative investments an annualized return of 9%.
10. To achieve in internally managed short-term securities relative performance better than three-month U.S. Treasury Bills.

B. PROXY VOTING GUIDELINES

The Board of Trustees of the Illinois Municipal Retirement Fund (IMRF or the "Fund") recognizes its fiduciary responsibility to prudently manage the assets of the Fund. The assets include common stock in many different companies and, as a shareowner, the Board also owns proxy voting rights. The Board acknowledges that it not only has a right to vote proxies, but also a duty to vote them. Proxies have economic value and, therefore, the Board has the duty to prudently oversee the management of them as it does all other Fund assets.

The Board shall vote proxies in accordance with the exclusive benefit rule which requires the Board to act solely in the economic interest of the Fund's members and beneficiaries.

Generally, proxies related to corporate governance shall be voted in favor of shareholder-sponsored proposals requiring corporate boards to act in the best interests of shareholders. Proxies related to director, executive, and employee compensation shall be voted in favor of compensation plans that motivate directors, executives, and employees to achieve high performance for the long-term benefits of all shareowners. Proxies related to takeover defenses shall be voted in favor of proposals allowing shareholders to vote on poison pills and golden parachutes. Proxies related to capital structure issues shall be voted in favor of proposals requiring shareowner approval for reasonable share increases needed for business purposes. Proxies related to mergers, acquisitions, and corporate restructuring will be voted on a case-by-case basis. Proxies related to routine management issues shall generally be voted in accordance with management's view on such issues. In keeping with the Board's fiduciary duty to act solely in the economic interest of the Fund, and because empirical evidence is inconclusive about whether all social and political proposals enhance shareowner value, IMRF will abstain from voting on such proposals.

C. DOMESTIC EQUITY INVESTMENT GUIDELINES

1. Generally, no individual security shall comprise more than 5% of the total portfolio at market value.
2. The total portfolio shall generally not hold more than 5% of the outstanding shares of any one company.
3. Holdings of any one issuer, at the time of purchase, shall generally be limited to not more than 15% of a manager's portfolio market value.
4. Sector exposure in the total portfolio shall generally not differ by more than five percentage points from the sector exposure of the Russell 3000 Index.
5. Domestic equity managers must invest in equity securities that are listed on principal U.S. exchanges or traded over the counter. American Depository Receipts (ADRs) of foreign companies are permissible.

D. INTERNATIONAL EQUITY INVESTMENT GUIDELINES

1. Generally, no individual security shall comprise more than 6% of the total portfolio at market value.
2. The total portfolio shall generally not hold more than 5% of the outstanding shares of any one company.
3. Holdings of any one issuer, at the time of purchase, shall generally be limited to a maximum of 8% of a manager's portfolio market value.
4. Sector exposure in the portfolio shall not exceed the higher of 25% or two times the benchmark weighting at market value.
5. Country exposure in the portfolio shall not exceed the higher of 25% or two times the benchmark weighting at market value.
6. International equity managers shall generally invest in equity securities of companies domiciled outside of the U.S. They may be allowed to invest in U.S. domiciled companies that operate, and/or generate revenues primarily outside the U.S.
7. International equity managers may engage in various transactions to manage currency. Forward contracts, futures, and options may be used for currency management purposes. Currency trading may not be used for speculative purposes unless otherwise specified in individual manager guidelines.

E. FIXED INCOME INVESTMENT GUIDELINES

1. Bonds, notes, or other obligations of indebtedness issued or guaranteed by the U.S. government, its agencies, or instrumentalities may be held without restriction.
2. The average credit quality of the total fixed income portfolio must be investment grade.
3. Debt obligations of any single U.S. corporation shall generally be limited to a maximum of 5% of the total fixed income portfolio at market value.
4. Generally, no more than 30% of an investment manager's assets at market value may be invested in securities rated below investment grade at the time of purchase. Investment managers outside of core and core plus mandates are not subject to this restriction.
5. Bonds or other debt obligations of foreign countries and corporations payable in U.S. dollars and foreign currency are authorized, but in general will not exceed 15% of total fixed income portfolio.
6. Individual manager portfolios shall have an effective duration between 80% and 120% of the index for mandates benchmarked against the Barclays Capital Aggregate Index or the Merrill Lynch High Yield Cash Pay Index.
7. The use of swaps, exchange-traded financial futures, exchange-traded options on financial futures, and over-the-counter options are subject to individual manager guidelines. Managers are not permitted to utilize these transactions for speculative purposes. Leverage is not allowed except as permitted for rolling mortgage pass-through securities.
8. No assets shall be committed to short sale contracts.

F. EQUITY REAL ESTATE INVESTMENT GUIDELINES

The primary role of the global real estate program is to provide diversification benefits to the total Fund through low correlations with other portfolio asset classes. The secondary role is to generate income and provide protection against inflation.

1. The maximum commitment to any private real estate manager shall be 40% of the total real estate portfolio value plus unfunded commitments at the time of due diligence.
2. IMRF will seek property type diversification at the total private real estate portfolio level and any single private real estate investment may not be fully diversified. Investments may include office, retail, industrial, multi-family, and other non-traditional categories such as hotels, self-storage, data centers, student housing, land, and other property types.
3. IMRF will seek geographic and economic diversification at the total private real estate portfolio level. Any given investment may not be diversified on a stand-alone basis. Although IMRF may invest in strategies where investments are located outside of the U.S., exposure to these dedicated strategies is limited to 25% of the total real estate portfolio value plus unfunded commitments at the time of due diligence.
4. IMRF's long-term strategic target to core real estate investments is 60% with a minimum of 50%.
5. Modest amounts of leverage may be used as a means of enhancing the overall risk adjusted returns. Leverage at the total real estate portfolio level will be kept below 50% loan to value.
6. Publicly traded real estate securities will not exceed 20% of the total real estate portfolio plus unfunded commitments at the time of due diligence.
7. The majority of real estate investments will consist of equity ownership in commercial real estate. Managers whose sole strategy is to invest in non-equity or debt strategies will not exceed 25% of the total real estate portfolio plus unfunded commitments at the time of due diligence.

G. ALTERNATIVE INVESTMENT GUIDELINES

The Alternative Investment Portfolio will consist of venture capital, buyout, mezzanine, special situation, timber, agriculture, and absolute return investments. The investments will be made to generate long-term returns in a diversified manner. The investments will generally be made through limited partnership structures in which IMRF commits a fixed amount that the General Partner will invest over several years. The partnership structure may cover periods of 10 years or more. IMRF understands and recognizes that the alternative asset class will not be structured in a way to provide short-term cash flow needs for the Fund.

Exposure to dedicated non-U.S. strategies will be limited to 30% of the total alternative investments portfolio value plus unfunded commitments at the time of due diligence.

The maximum commitment to any direct alternative manager shall be 40% of the total alternative investments portfolio value plus unfunded commitments at the time of due diligence.

H. SHORT-TERM INVESTMENT GUIDELINES

Permissible short-term investments are U.S. Treasury Bills and Notes, high-grade commercial paper, repurchase agreements, banker's acceptances, and certificates of deposit. Commercial paper investments shall be made in instruments rated "A-2" or "P-2" or better, as defined by a recognized rating service. Comparable ratings are required for banker's acceptances and certificates of deposit. Idle cash balances swept by the custodian bank shall be invested in a constant $1 Net Asset Value vehicle. The objective is to generate current income that is consistent with preservation of capital and maintenance of liquidity.

RETURNS BY ASSET CLASS *(Periods ending December 31)*

						Annualized		
	2018	2017	2016	2015	2014	3 Yrs	5 Yrs	10 Yrs
Total Fund Time - Weighted Returns								
IMRF - Gross of Fees	(4.25)%	15.96%	8.00%	0.44%	6.01%	6.26%	5.07%	9.47%
IMRF - Net of Fees	(4.41)%	15.73%	7.77%	0.20%	5.76%	6.05%	4.84%	9.24%
CPI (Inflation)	1.91%	2.11%	2.07%	0.73%	0.76%	2.03%	1.51%	1.80%
Equities - U.S.								
IMRF - Gross of Fees	(6.08)%	19.83%	12.62%	0.02%	9.81%	8.22%	6.84%	13.31%
IMRF - Net of Fees	(6.26)%	19.60%	12.35%	(0.24)%	9.54%	8.00%	6.60%	13.05%
Russell 3000	(5.24)%	21.13%	12.74%	0.48%	12.55%	8.97%	7.91%	13.18%
Russell 2000	(11.01)%	14.65%	21.31%	(4.41)%	4.89%	7.36%	4.41%	11.97%
Equities - International								
IMRF - Gross of Fees	(14.16)%	27.91%	3.54%	(1.90)%	(2.79)%	4.39%	1.64%	7.95%
IMRF - Net of Fees	(14.41)%	27.53%	3.21%	(2.21)%	(3.10)%	4.05%	1.31%	7.61%
MSCI ACWI Ex-U.S.	(14.20)%	27.19%	4.50%	(5.66)%	(3.87)%	4.48%	0.68%	6.57%
MSCI EAFE	(13.79)%	25.03%	1.00%	(0.81)%	(4.90)%	2.87%	0.53%	6.32%
Fixed Income								
IMRF - Gross of Fees	(0.28)%	4.80%	4.85%	0.09%	5.93%	3.11%	3.09%	5.30%
IMRF - Net of Fees	(0.41)%	4.67%	4.71%	(0.04)%	5.78%	2.96%	2.94%	5.14%
Bloomberg Aggregate	0.01%	3.54%	2.65%	0.55%	5.97%	2.06%	2.52%	3.48%
Bloomberg Government/ Credit	(0.42)%	4.00%	3.05%	0.15%	6.01%	2.19%	2.53%	3.46%
Merrill Lynch High Yield	(2.26)%	7.48%	17.34%	(4.55)%	2.45%	7.22%	3.81%	10.89%
Real Estate								
IMRF - Net of Fees	8.36%	9.10%	8.97%	11.99%	12.66%	9.12%	10.55%	6.43%
Real Estate Benchmark	7.36%	6.66%	7.79%	13.95%	11.46%	7.27%	9.41%	8.13%
Alternative Investments								
IMRF - Gross of Fees	17.32%	12.15%	5.43%	6.34%	9.04%	11.47%	10.57%	8.45%
IMRF - Net of Fees	17.14%	11.97%	5.11%	5.95%	8.47%	11.24%	10.25%	8.15%
Cash & Cash Equivalents								
IMRF	2.36%	1.67%	0.63%	0.29%	0.17%	1.55%	1.02%	(0.16)%
U.S. Treasury Bills	1.87%	0.86%	0.33%	0.05%	0.03%	1.02%	0.63%	0.37%

These investment results are calculated and presented using standard performance evaluation methods in a manner consistent with the investment industry in general and public pension funds in particular. Rates of return were determined using a modified time-weighted return calculation.

Source: Callan Associates Portfolio Evaluation Program.

Due to the implementation of the GASB Statement No.72 for the Financial section of this report, the returns above may not compare to the corresponding groupings due to reclassifications.

SCHEDULE I

Investment Portfolio Summary ***(In millions of dollars)***

	As of December 31, 2018		As of December 31, 2017	
	Fair Value	Percent of Total Fair Value	Fair Value	Percent of Total Fair Value
Fixed Income				
Government & Agencies	$ 3,433.7	8.9%	$ 3,097.2	7.5%
Corporate	3,285.1	8.5	2,984.6	7.2
Index Funds	3,289.2	8.6	3,320.3	8.1
Foreign	1,341.0	3.5	1,404.5	3.4
Total Fixed Income	**11,349.0**	**29.5**	**10,806.6**	**26.2**
Stocks				
U.S. Common & Preferred	11,173.6	29.0	11,891.8	28.8
U.S. Stock Funds	4,066.5	10.6	5,716.9	13.9
Foreign Common & Preferred	4,251.6	11.0	5,158.3	12.5
Foreign Stock Funds	2,690.4	7.0	3,121.5	7.6
Total Stocks	**22,182.1**	**57.6**	**25,888.5**	**62.8**
Real Estate				
Commingled Funds	1,990.9	5.2	1,891.3	4.6
Directly Owned	765.3	2.0	659.0	1.6
Total Real Estate	**2,756.2**	**7.2**	**2,550.3**	**6.2**
Private Equity Investments	**1,559.9**	**4.0**	**1,315.4**	**3.2**
Short-Term Investments	**663.8**	**1.7**	**654.0**	**1.6**
Total Portfolio	**$ 38,511.0**	**100.0%**	**$ 41,214.8**	**100.0%**

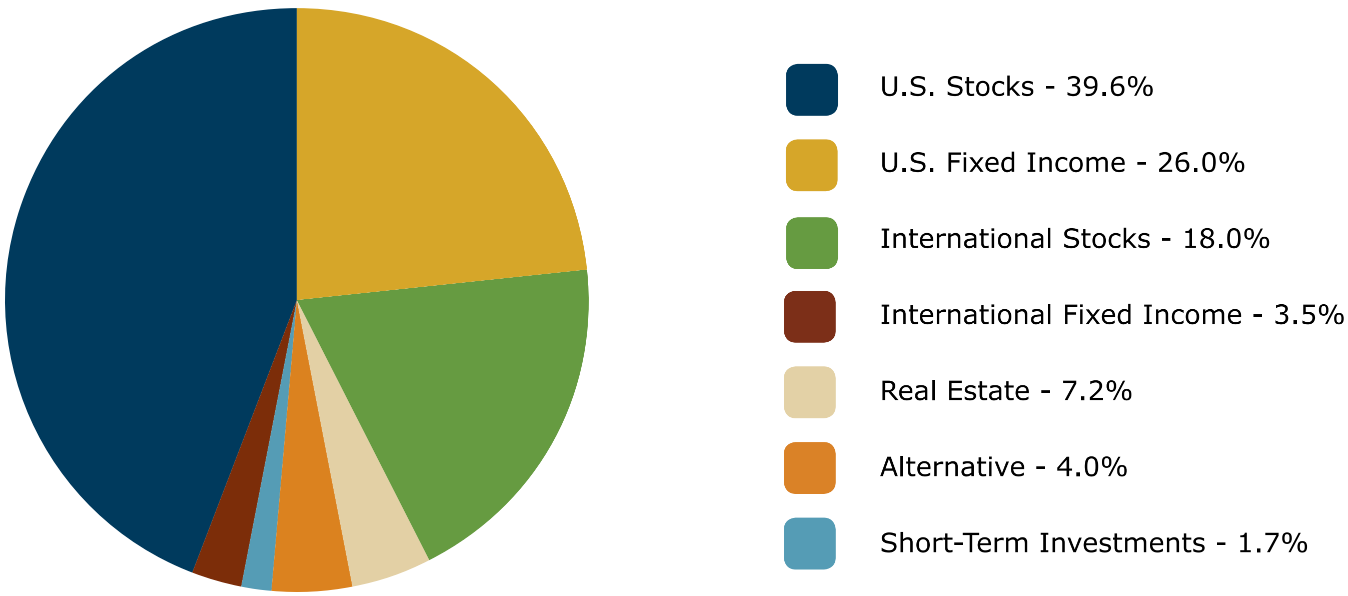
SCHEDULE II

Asset Allocation *(Last five years)*

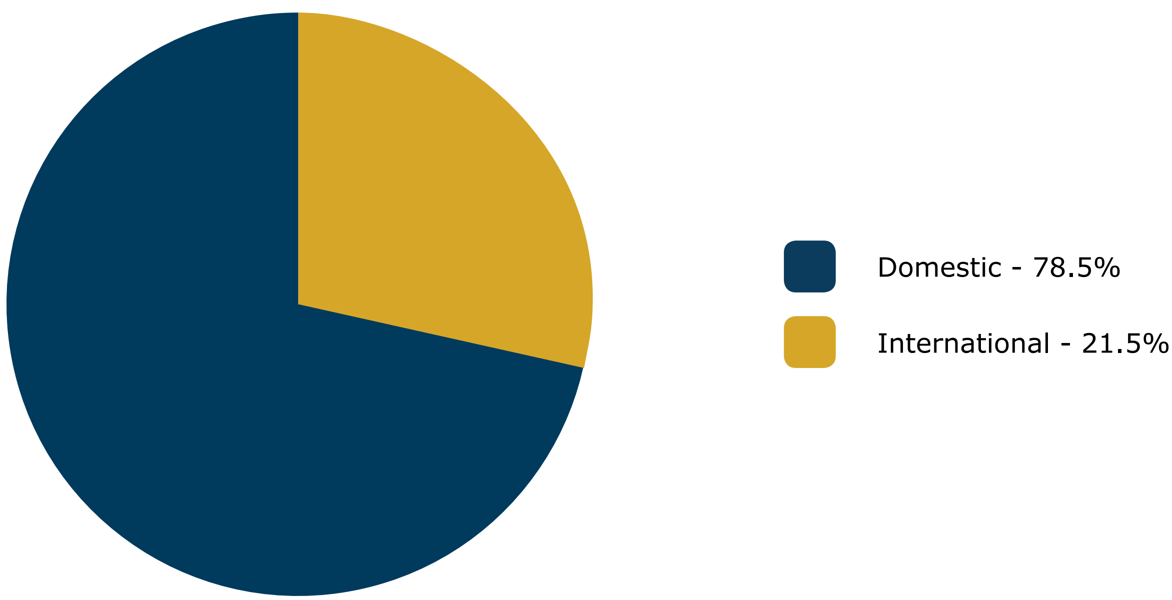
	Fair Value as a Percent of Portfolio				
	2018	**2017**	**2016**	**2015**	**2014**
Fixed Income					
U.S. Government & Agencies	8.9%	7.5%	8.9%	8.9%	8.2%
Corporate	8.5	7.2	7.7	7.6	7.2
Index Fund	8.6	8.1	8.1	8.4	8.1
Foreign	3.5	3.4	2.8	2.8	2.6
Total Fixed Income	**29.5**	**26.2**	**27.5**	**27.7**	**26.1**
Stocks					
U.S. Common & Preferred	29.0	28.8	29.2	28.9	30.8
U.S. Stock Funds	10.6	13.9	14.2	13.1	13.3
Foreign Common & Preferred	11.0	12.5	10.4	10.4	10.7
Foreign Stock Funds	7.0	7.6	7.3	7.9	8.4
Total Stocks	**57.6**	**62.8**	**61.1**	**60.3**	**63.2**
Real Estate					
Commingled Funds	5.2	4.6	4.5	4.2	3.5
Directly Owned	2.0	1.6	1.8	1.8	1.5
Total Real Estate	**7.2**	**6.2**	**6.3**	**6.0**	**5.0**
Private Equity Investments	**4.0**	**3.2**	**3.1**	**4.1**	**3.8**
Short-Term Investments	**1.7**	**1.6**	**2.0**	**1.9**	**1.9**
Total Portfolio	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

INVESTMENT PORTFOLIO *(AS OF DECEMBER 31, 2018)*

ALLOCATION BY ASSET CLASS



TOTAL INVESTMENTS BY REGION



TEN LARGEST FIXED INCOME INVESTMENT HOLDINGS

As of December 31, 2018 *(Excludes commingled funds and short-term investments)*

Investment Income Holdings	Market Value	Percent of Total Invested Market
U.S. Treasury Notes 1.625% Due 2/15/2026	$ 174,127,525	4.50%
U.S. Treasury Bonds 2.5% Due 5/15/2046	167,322,142	0.43
U.S. Treasury Notes 2.375% Due 8/15/2024	105,135,910	0.28
U.S. Treasury Bonds 2.375% Due 2/15/2027	89,258,237	0.23
Federal Home Loan Bank Floater 2.416% due 5/8/2020	72,301,068	0.19
U.S. Treasury Notes 1.25% Due 1/31/2020	60,502,730	0.16
U.S. Treasury Bonds 4.75% Due 2/15/2037	45,579,151	0.12
U.S. Treasury Notes 2.875% Due 5/15/2028	43,893,504	0.12
Federal Home Loan Bank Floater 2.657% due 12/18/2020	41,328,498	0.11
U.S. Treasury Bonds 6.25% Due 5/15/2030	40,877,734	0.10
	$ 840,326,499	**6.24%**

TEN LARGEST EQUITY INVESTMENT HOLDINGS *(Excludes commingled funds)*

Equity Investment Holdings	Market Value	Percent of Total Invested Market
Amazon, Inc.	$ 283,926,401	0.36%
Microsoft Corp.	240,766,200	0.38
Apple, Inc.	174,264,369	0.48
Alphabet, Inc.	163,543,555	0.22
Pfizer	144,364,911	0.27
Comcast	120,304,404	0.27
Ailbaba	115,737,385	0.26
Citigroup	77,900,554	0.24
Wells Fargo & Co.	99,443,912	0.23
AT&T	68,422,766	0.21
Total	**$ 1,488,674,457**	**2.92%**

A complete listing of investments is available on IMRF's website, www.imrf.org.

SCHEDULE OF 2018 DOMESTIC BROKERAGE COMMISSIONS

(In order of commission received)

Broker Name	Total Shares	Commission	Per Share
Loop Capital Markets LLC	20,327,635.00	$ 403,249.98	$ 0.02
Capital Institutional Services Inc.	9,983,743.00	338,949.07	0.03
Jones Trading Institutional Services LLC	11,147,814.00	265,093.49	0.02
Blaylock Robert Van LLC	5,443,106.00	161,686.54	0.03
Penserra Securities LLC	5,249,837.00	159,756.90	0.03
Cantor Fitzgerald & Co.	5,995,302.00	144,520.67	0.02
J.P. Morgan Securities LLC	7,415,615.00	140,327.70	0.02
Liquidnet Inc.	7,342,304.00	134,583.60	0.02
RBC Capital Markets, LLC	5,583,279.00	133,197.90	0.02
C.L. King & Associates, Inc.	3,910,833.00	124,647.62	0.03
Stifel, Nicolaus & Company Inc.	3,103,101.00	119,067.07	0.04
Robert W. Baird & Co. Incorporated	3,397,814.00	115,785.58	0.03
Raymond James & Associates	2,765,752.00	106,122.94	0.04
ITG Inc.	4,459,680.00	100,026.58	0.02
The Williams Capital Group LP	3,034,665.00	86,018.85	0.03
National Financial Services LLC	13,961,929.00	84,013.10	0.01
Instinet LLC	3,253,840.00	77,614.20	0.02
Cowen Execution Services LLC	2,962,827.00	74,071.00	0.03
Weeden and Co.	2,752,336.00	73,002.19	0.03
Sanford C. Bernstein & Co. LLC	8,548,086.00	63,603.99	0.01
Fidelity Capital Markets (Div of NFSC)	4,426,622.00	61,330.57	0.01
The Cabrera Capital Markets LLC	3,671,860.00	60,367.96	0.02
Credit Suisse Securities (USA) LLC	3,825,450.00	58,634.15	0.02
Drexel Hamilton LLC	2,586,898.00	51,737.96	0.02
UBS Securities Asia Limited	12,953,816.00	35,721.62	-
Macquarie Bank Limited	3,315,850.00	30,327.26	0.01
Morgan Stanley and Co. LLC	3,534,229.00	28,993.06	0.01
Merrill Lynch Intlernational Limited	25,778,507.00	7,462.64	-
Goldman Sachs and Co.	2,707,787.00	5,117.26	-
JP Morgan Chase Bank/HSBCSI	6,695,000.00	-	-
Other Brokers	103,640,757.14	1,488,530.45	0.01
Total	**303,776,274.14**	**$ 4,733,561.90**	**$ 0.02**

SCHEDULE OF 2018 INTERNATIONAL BROKERAGE COMMISSIONS

(In order of commission received)

Broker Name	Total Shares	Commission	Per Share
BNY Convergex Execution Solutions	35,652,323.00	$ 394,128.79	$ 0.01
Instinet Europe Limited	31,990,152.00	365,623.57	0.01
CLSA Singapore Pte Ltd.	7,146,977.00	115,559.83	0.02
Goldman, Sachs and Co.	24,776,835.00	103,013.78	-
Merrill Lynch International Limited	18,007,639.00	101,200.45	0.01
Societe Generale London Branch	10,260,533.00	97,714.07	0.01
UBS Limited	15,086,510.00	92,846.46	0.01
Investment Technology Group Ltd.	15,315,380.00	90,107.83	0.01
CLSA Limited	65,579,519.00	81305.61	-
Citigroup Global Markets Inc.	15,735,037.00	75,250.17	-
Instinet Pacific Limited	40,928,025.00	73,560.97	-
UBS Securities Asia Limited	93,635,983.00	69,179.84	-
UN BNP Paribas Securities Services	6,195,104.00	67,847.51	0.01
J.P. Morgan Securities PLC	7,464,853.00	66,808.88	0.01
Macquarie Bank Limited	12,540,102.00	61,305.59	-
Morgan Stanley and Co. LLC	8,405,302.00	59,667.99	0.01
Credit Suisse Securities (USA) LLC	12,753,695.00	55,493.26	-
Citigroup Global Markets Limited	8,914,966.00	52,636.80	0.01
SA BNP Paribas Securities Services	7,876,398.00	43,937.53	0.01
Sanford C. Bernstein Ltd	9,276,402.00	38,845.96	-
UBS AG Stamford Branch	6,126,106.00	37,732.52	0.01
Exane S.A.	6,109,242.00	36,169.68	0.01
Merrill Lynch Piece Fenner & Smith	6,548,902.00	30,705.95	-
HSBC Bank PLC	7,269,371.00	28,454.13	-
ITG Australia Limited	25,015,509.00	21,981.38	-
Jefferies International Ltd	5,086,218.00	16,481.39	-
SG Securities (Hk) Limited	5,939,773.00	14,319.08	-
J.P. Morgan Securities (Asia Pacific)	11,241,054.00	11,792.77	-
CLSA Securities (Thailand) Ltd	6,264,000.00	7317.02	-
China Intl Capital Corp HK Secs Ltd	5,755,900.00	6,353.67	-
Other Brokers	139,095,560.49	1,291,558.08	0.01
Total	**671,993,370.49**	**$ 3,608,900.56**	**$ 0.01**

SCHEDULE OF INVESTMENT FEES

	2018 Fees	2018 Assets under management at year end (in thousands)*	Basis Points	2017 Fees	2017 Assets under management at year end (in thousands)*	Basis Points
Investment manager fees						
Fixed income managers	$ 13,647,780	$ 10,651,277	13	$ 13,558,197	$ 10,140,087	13
Stock managers	32,691,248	14,062,905	23	31,228,610	17,295,394	18
International managers	29,258,827	9,548,795	31	28,657,597	10,041,226	29
Real estate managers	28,069,223	2,501,808	112	24,870,802	2,303,370	108
Alternative investment managers	21,232,159	1,757,155	121	15,853,588	1,406,324	127
Total	**$124,899,237**	**$ 38,521,940**		**$114,168,794**	**$ 41,186,401**	
Other investment fees						
Master trustee fees	$ 280,000			$ 280,000		
Investment consulting fees	1,191,019			1,176,287		
Total investment fees	**126,370,256**			**115,625,081**		
Non-fee investment expenses	604,915			505,363		
Total direct investment expenses	**$126,975,171**			**$116,130,444**		

Securities lending fees		
Management fees and borrower rebates	**$ 2,285,472**	**$ 733,764**

** Assets under management includes accrued investment income and unsettled trades.*

HONESTY

IMRF is the best-funded public pension fund in Illinois, a legacy that stems from our honest approach to providing retirement security to thousands of people across the state and beyond. We build confidence with our members and employers through transparent and ethical practices that cultivate trust in IMRF. The truth is, IMRF is more than a public pension fund—it is an organization dedicated to serving the people in our community for years to come.

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March 29, 2019

Board of Trustees
Illinois Municipal Retirement Fund
2211 S. York Road, Suite 500
Oak Brook, Illinois 60523-2374

Dear Board Members:

The basic financial objective of the Illinois Municipal Retirement Fund (IMRF) is to establish and receive contributions which:

- When expressed in terms of percents of active member payroll will remain approximately level from generation to generation, and
- When combined with present assets and future investment returns will be sufficient to meet the financial obligations of IMRF to present and future retirees and beneficiaries.

The financial objective is addressed within the annual actuarial valuation of the IMRF.

The purposes of the valuation are to: 1) Measure the financial position of IMRF, and 2) Develop 2020 employer contribution rates that are sufficient to fund each participating employer's normal cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund unfunded actuarial accrued liabilities as a level percent of active member payroll. The valuations cannot be relied upon for any other purpose.

The most recent funding valuation was completed based upon population data, asset data, and plan provisions as of December 31, 2018, and issued on February 28, 2019. The individual member statistical data required for the valuations was furnished by your Executive Director and Staff, together with pertinent data on financial operations. Their cooperation in furnishing these materials is acknowledged with appreciation. We are not responsible for the accuracy or completeness of the data. We checked the information provided for internal and year-to-year consistency, but did not audit the data. A report containing the results of the funding valuation is produced annually.

The following schedules in the Actuarial Section and Financial Section of the CAFR were prepared based upon certain information presented in the previously mentioned funding valuation report. The actuary provided the Brief Summary of Assumptions directly. In the case of the other schedules, IMRF Staff excerpted information from various schedules in the actuarial reports and tabulated it to produce the appropriate CAFR Schedule.

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

Board of Trustees
Illinois Municipal Retirement Fund
March 29, 2019
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Actuarial Section

- Brief Summary of Assumptions
- Schedules of Funding Progress
- Schedule of Employer Contributions
- Solvency Test
- Participating Member Statistics
- Actuarial Balance Sheet
- Analysis of Unfunded Liability
- Derivation of Experience Gain (loss)

Financial Section

- Schedules of Funding Status
- Schedule of Funding Progress
- Average Employer Contribution rates

The December 31, 2018 valuations were based upon assumptions that were recommended in connection with a study of experience covering the 2014-2016 period. A brief summary of the assumptions and methods is attached.

All assumption and methods comply with relevant actuarial standards of practice. The funding valuation complies with the Board's funding policy. If the funding policy is followed and all assumptions are realized exactly, contributions to the plan will stay approximately level, and the plan will gradually approach 100% funding over a very long period of years.

As of the valuation date, in the aggregate, IMRF is 90.0% funded based upon the smoothed value of assets and 85.5% funded based upon market value. Each participating employer, however, has a separate funding percent, some of which will be above the aggregate result, and others of which will be below it. Based upon the results of the December 31, 2018 valuations, we are pleased to report to the Board that the Illinois Municipal Retirement Fund is meeting its basic financial objective and continues to operate in accordance with the actuarial principles of level percent-of-payroll financing.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

Board of Trustees
Illinois Municipal Retirement Fund
March 29, 2019
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Readers desiring a more complete understanding of the actuarial condition of IMRF are encouraged to obtain and read the complete valuation reports. The material in the Actuarial Section and Financial Section of this CAFR contains some, but not all, of the information in the valuation reports.

Brian B. Murphy, Mark Buis, and Francois Pieterse are Members of the American Academy of Actuaries (MAAA), are independent of the plan sponsor and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

Brian B. Murphy

Brian B. Murphy, FSA, EA, FCA, MAAA

Mark Buis

Mark Buis, FSA, EA, FCA, MAAA

Pieterse

Francois Pieterse, ASA, FCA, MAAA

BBM/MB/FP:bd
Enclosure

Brief Summary of Actuarial Assumptions Used in 2018 Valuations
(Adopted as of December 31, 2017, except as noted below)

Investment Return — 7.25% per annum, compounded annually, net of expenses (effective December 31, 2018), including a price inflation component of 2.50%.

Payroll Growth — 2.50% per annum, compounded annually.

Retirement Rates — Rates vary by age and sex. See table below for sample values.

Mortality for Actives and Annuitants — For non-disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Blue Collar Healthy Annuitant Mortality Table with adjustments to match current IMRF experience. For disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Disabled Retirees Mortality Table applying the same adjustments that were applied for non-disabled lives. For active members, an IMRF specific mortality table was used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Employee Mortality Table with adjustments to match current IMRF experience. Among the active members, 75% of males and 70% of females were assumed to be married.

Disability — Graduated rates by age. See table below for sample values.

Separation and Salary Increases — Graduated rates by age and service. See table below for sample values.

Asset Valuation Method — Market Related Value that reflects five-year averaging of investment gains and losses, subject to a 20% corridor.

Liability Valuation Method — For the purposes of determining contribution rates, the Entry Age Actuarial Cost Method is applied on an aggregate basis. Gains and Losses become part of unfunded liabilities.

	Sample Probabilities				Pay Increase Next Year (5+ Yrs. of Service)
	Active Mortality		Disability		
Age	Male	Female	Male	Female	
20	0.06%	0.02%	0.00%	0.00%	5.75%
30	0.06%	0.02%	0.00%	0.00%	5.27%
40	0.10%	0.05%	0.02%	0.01%	4.23%
50	0.25%	0.13%	0.04%	0.02%	3.73%
60	0.64%	0.31%	0.08%	0.05%	3.39%
65	1.23%	0.49%	0.09%	0.06%	3.39%

	Separation			Retirement (Tier 1)					
	Regular (8+ Yrs. Serv.)		SLEP	Reduced Early		Normal Unreduced		SLEP Service	
Age	Male	Female	(7+ Yrs.)	Male	Female	Male	Female	(< 32 Yrs.)	(32+ Yrs.)
30	4.4%	7.3%	2.4%	-	-	-	-	-	-
35	3.5%	5.8%	1.8%	-	-	-	-	-	-
40	2.8%	4.4%	1.3%	-	-	-	-	-	-
45	2.3%	3.6%	1.2%	-	-	-	-	-	-
50	2.0%	3.0%	1.2%	-	-	-	-	27.0%	35.0%
55	-	-	-	7.10%	6.00%	37.0%	26.0%	24.0%	35.0%
60	-	-	-	-	-	13.0%	11.0%	20.0%	35.0%
65	-	-	-	-	-	25.0%	26.0%	30.0%	35.0%
70	-	-	-	-	-	22.0%	23.0%	100.0%	100.0%

FUNDED STATUS AND FUNDING PROGRESS

As of December 31, 2018, the most recent actuarial valuation date, the plan on an aggregate basis was 90.0% funded on an actuarial basis. The actuarial accrued liability for benefits was $45.4 billion, and the actuarial value of assets was $40.8 billion, resulting in an unfunded actuarial accrued liability (UAAL) of $4.6 billion. The covered payroll (annual payroll of active employees covered by the plan) was $7.3 billion, and the ratio of the UAAL to the covered payroll was 61.8%.

Due to the change in the assumed investment rate of return from 7.5% in 2018 to 7.25% in 2019, the actuarial valuation was calculated using the new rate of 7.25%. This is standard and best practice.

The schedule of funding progress presents multi-year trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits.

ADDITIONAL INFORMATION AS OF THE LATEST ACTUARIAL VALUATION FOLLOWS:

Valuation date .... December 31, 2018

Actuarial cost method .... Entry age normal

Amortization method .... Level percent of payroll for Regular and SLEP; level dollars for ECO

Amortization period .... Taxing bodies: closed, 23 years

Entities over 120% funded on a market basis: varies by funding status

Non-taxing bodies: open, 10 years

Asset valuation method .... Five-year smoothed market related with a 20% corridor

ACTUARIAL ASSUMPTIONS:

Investment rate of return .... 7.25% (change effective January 2019)

Projected salary increases .... 3.39% to 14.25%

Assumed wage inflation rate 3.25%

Group size growth rate 0.0%

Assumed payroll growth rate 2.5%

Post-retirement increase .... Tier 1 - 3.0%—simple

Tier 2 - 3.0%—simple or 1/2 increase in CPI, whichever is less

Mortality table .... For non-disabled retirees, an IMRF specific mortality table was used with 2-dimensional, fully generational improvements using the MP-2017 Mortality Improvement Scale (base year 2015). The IMRF specific rates were developed from the RP-2014 Blue Collar Mortality Table with adjustments to match current IMRF experience. For disabled retirees, an IMRF specific mortality table was used with 2- dimensional, fully generational improvements using the MP-2017 Mortality Improvement Scale. The IMRF specific rates were developed using the RP-2014 Disabled Mortality Table with adjustments to match current IMRF experience. For active members, the mortality rates are based on the RP-2014 Employee Mortality Table for both males and females with 2-dimensional, fully generational improvements using the MP-2017 Mortality Improvement Scale. Among active members, 75% of males and 70% of females were assumed to be married.

TABLE I

Schedule of Aggregate Funding Progress ***(Last ten years)***

	Aggregate Actuarial Liabilities (AAL)			Unfunded Actuarial Liabilities (UAL)		
Actuarial Valuation Date December 31	Total AAL Entry Age (a)	Actuarial Assets (b)	Actuarial Assets as a percent of AAL (b/a)	Total UAL (a-b)	Member Payroll (c)	UAL as a percent of Member Payroll (a-b)/c
2009	$27,345,113,216	$22,754,803,784	83.2%	$4,590,309,432	$6,461,696,602	71.0%
2010	29,129,228,239	24,251,136,889	83.3	4,878,091,350	6,391,164,701	76.3
2011*	30,962,815,428	25,711,287,584	83.0	5,251,527,844	6,431,296,235	81.7
2012	32,603,244,099	27,491,809,785	84.3	5,111,434,314	6,496,076,569	78.7
2013	34,356,575,473	30,083,042,548	87.6	4,273,532,925	6,602,479,436	64.7
2014*	37,465,147,612	32,700,208,537	87.3	4,764,939,075	6,732,500,876	70.8
2015	39,486,573,890	34,913,127,469	88.4	4,573,446,421	6,919,337,807	66.1
2016	41,358,710,402	36,773,397,527	88.9	4,585,312,875	7,006,710,264	65.4
2017*	42,179,482,656	39,187,802,312	92.9	2,991,680,344	7,127,492,621	42.0
2018*	45,354,110,653	40,829,952,193	90.0	4,524,158,460	7,321,479,593	61.8

** After assumption change*
This data was provided by the Actuary.

TABLE II

Schedule of Aggregate Employer Contributions ***(Last ten years)***

Year Ended December 31	Normal Contributions	Amortization of Unfunded Actuarial Liability	Death & Disability Benefit Contributions	Supplemental Retirement Benefit Contributions	Total Contributions	Percentage of Actuarial Required Contribution Contributed
2009	$ 478,760,517	$ 119,391,054	$ 21,417,551	$ 40,830,286	$ 660,399,408	100%
2010	483,792,012	225,268,536	20,582,277	40,499,453	770,142,278	91
2011	486,731,753	254,898,222	18,654,559	40,519,719	800,804,253	95
2012	503,108,449	317,890,978	21,340,072	40,876,782	883,216,281	98
2013	512,289,897	356,734,526	20,344,350	41,600,283	930,969,056	99
2014	513,293,254	348,081,564	19,531,784	42,476,223	923,382,825	100
2015	518,959,516	317,936,978	19,973,953	43,606,437	900,476,884	100
2016	478,995,396	390,798,313	20,170,190	43,973,422	933,937,321	100
2017	477,803,406	361,773,832	19,107,613	44,797,180	903,482,031	100
2018	483,736,934	404,016,662	13,752,607	46,062,620	947,568,823	100

TABLE III
Solvency Test *(Last ten years)*

	Aggregate Actuarial Liabilities (AAL)				Portion of Actuarial Liabilities Covered by Assets		
Calendar Year	Active Member Contributions (1)	Annuitants (2)	Active Members (Employer Financed Portion) (3)	Actuarial Assets	(1)	(2)	(3)
2009	$ 4,893,022,745	$10,903,323,478	$ 11,548,766,993	$ 22,754,803,784	100%	100%	60.3%
2010	5,153,902,881	12,121,959,266	11,853,366,092	24,251,136,889	100	100	58.8
2011	5,417,822,062	13,388,018,799	12,156,974,567	25,711,287,584	100	100	56.8
2012	5,705,336,025	14,482,560,758	12,415,347,316	27,491,809,785	100	100	58.8
2013	5,957,217,332	15,753,071,341	12,646,286,800	30,083,042,548	100	100	66.2
2014	6,262,110,058	17,885,026,667	13,318,010,887	32,700,208,537	100	100	64.2
2015	6,488,892,894	19,506,345,352	13,491,335,644	34,913,127,469	100	100	66.1
2016	6,714,120,028	21,085,519,077	13,559,071,297	36,773,397,527	100	100	66.2
2017	6,924,946,616	22,007,921,865	13,246,614,175	39,187,802,312	100	100	77.4
2018	7,141,414,323	24,106,296,051	14,106,400,279	40,829,952,193	100	100	67.9

Total obligation and actuarial value of assets calculated by the Actuary.

TABLE IV
Participating Member Statistics *(Last ten years)*

Calendar Year	Total Salaries	Percent Increase (Decrease) in Total Salaries	Average Annual Salary	Percent Increase in Average Salary	Number of Participating Members	Average Attained Age	Average Years of Service
2009	$ 6,461,696,602	3.2%	$ 35,771	3.2%	181,380	47.1	9.8
2010	6,391,164,701	(1.1)	36,277	1.4	176,703	47.5	10.3
2011	6,431,296,235	0.6	36,701	1.2	175,844	47.7	10.4
2012	6,496,076,569	1.0	37,252	1.5	174,771	47.8	10.6
2013	6,602,479,436	1.6	38,059	2.2	173,481	47.9	10.7
2014	6,732,500,876	2.0	38,786	1.9	173,579	47.9	10.6
2015	6,919,337,807	2.8	39,805	2.6	173,832	47.9	10.6
2016	7,006,710,264	1.3	40,076	0.7	174,835	47.8	10.5
2017	7,127,492,621	1.7	40,597	1.3	175,566	47.8	10.4
2018	7,321,479,593	2.7	41,476	2.2	176,523	47.8	10.3

Source for salaries, average annual salary, attained age, and service is in the Actuarial Report.

TABLE V

Schedule of Adds and Removals from Rolls (Last ten years)

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		End of Year Rolls			
Calendar Year	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits	Average Annual Benefit	Percent Change in Average Benefit
2009	6,422	$106,361,549	3,318	$ 26,218,141	92,058	$1,016,167,385	11,038	4.9%
2010	7,518	131,651,729	3,509	28,512,198	96,067	1,119,306,916	11,651	5.6
2011	7,733	130,378,649	5,200	35,101,362	98,600	1,214,584,203	12,318	5.7
2012	7,912	137,928,914	3,736	37,015,540	102,776	1,315,497,577	12,800	3.9
2013	8,855	154,660,608	3,899	39,647,140	107,732	1,430,511,045	13,278	3.7
2014	9,099	142,621,088	4,076	16,601,950	112,755	1,556,530,183	13,805	4.0
2015	9,553	154,096,739	4,276	17,348,199	118,032	1,693,278,723	14,346	3.9
2016	9,387	150,640,326	4,219	16,654,518	123,200	1,827,264,531	14,832	3.4
2017	9,655	160,577,864	4,597	19,935,030	128,258	1,967,907,365	15,343	3.4
2018	9,540	163,529,915	4,537	18,936,746	133,261	2,112,500,534	15,852	3.3

Schedule of Disabilitants Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		End of Year Rolls			
Calendar Year	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits	Average Annual Benefit	Percent Change in Average Benefit
2009	2,349	$28,136,992	2,325	$28,024,488	1,240	$10,903,396	8,793	(0.9)%
2010	2,407	29,913,347	2,433	29,158,561	1,214	11,658,182	9,603	9.2
2011	2,338	27,038,672	2,468	28,452,864	1,084	10,243,990	9,450	(1.6)
2012	2,207	25,996,458	2,138	25,600,824	1,153	10,639,624	9,228	(2.3)
2013	2,166	26,589,417	2,237	26,682,159	1,082	10,546,882	9,748	5.6
2014	2,123	26,688,760	2,115	26,126,923	1,090	11,108,719	10,191	4.5
2015	1,936	24,777,914	2,036	26,296,672	990	9,589,961	9,687	(4.9)
2016	1,841	24,551,597	1,899	25,084,100	932	9,057,458	9,718	0.3
2017	1,679	23,175,340	1,839	23,943,773	772	8,289,025	10,737	10.5
2018	1,655	23,316,183	1,704	23,483,662	723	8,121,546	11,233	4.6

TABLE VI

Average Employer Contribution Rates (Last five years)

Calendar Year	Normal Cost	Prior Service Cost	Disability and Death	Supplemental Retirement Benefit	Total
Regular members					
2016	6.84%	3.98%	0.29%	0.62%	11.73%
2017	6.71	3.74	0.27	0.62	11.34
2018	6.80	3.63	0.19	0.62	11.24
2019	5.61	2.66	0.17	0.62	9.06
2020	5.98	4.10	0.21	0.62	10.91
Sheriff's Law Enforcement Personnel (SLEP) members					
2016	11.95%	9.85%	0.29%	0.62%	22.71%
2017	11.77	9.73	0.27	0.62	22.39
2018	11.63	9.05	0.19	0.62	21.49
2019	10.98	8.73	0.17	0.62	20.50
2020	11.94	11.71	0.21	0.62	24.48
Elected County Official (ECO) members					
2016	16.49%	68.67%	0.29%	0.62%	86.07%
2017	16.83	55.78	0.27	0.62	73.50
2018	16.85	65.03	0.22	0.62	82.72
2019	13.21	52.41	0.19	0.62	66.43
2020	13.79	58.02	0.23	0.62	72.66

TABLE VII

Participating Member Contribution Rates (Last ten years)

	Regular IMRF			Sheriff's Law Enforcement Personnel				Elected County Official			
Year	**Normal**	**Survivor**	**Total**	**Normal**	**Survivor**	**SLEP**	**Total**	**Normal**	**Survivor**	**ECO**	**Total**
2009	3.75%	0.75%	4.50%	3.75%	0.75%	3.00%	7.50%	3.75%	0.75%	3.00%	7.50%
2010	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2011	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2012	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2013	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2014	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2015	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2016	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2017	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2018	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50

ACTUARIAL BALANCE SHEET

	December 31	
	2018	**2017**
Sources of Funds		
Actuarial value of assets	$ 40,829,952,193	$ 39,187,802,312
Actuarial present value of future contributions		
Member	2,664,003,754	2,549,012,250
Employer Normal Costs	3,499,482,076	3,148,115,665
Under Funded Actuarial Accrued Liability	4,524,158,460	2,991,680,344
Total Sources	**$ 51,517,596,483**	**$ 47,876,610,571**
Uses of Funds		
Retired members and beneficiaries	$ 24,106,296,051	$ 22,007,921,865
Inactive members	3,809,576,609	3,580,040,581
Active members	23,360,881,109	22,091,371,978
Voluntary additional members	212,299,709	163,347,624
Death and disability benefits	28,543,005	33,928,523
Total Uses	**$ 51,517,596,483**	**$ 47,876,610,571**

ANALYSIS OF UNDER FUNDED LIABILITY

	December 31	
	2018	**2017**
Under funded liability beginning of year	$ 2,991,680,344	$ 4,585,312,875
Assumed net (payments) during year	(212,346,977)	(302,834,136)
Assumed interest	216,508,988	332,679,056
Expected under funded liability	**$ 2,995,842,355**	**$ 4,615,157,795**
Increase(decrease) due to experience study	1,190,996,469	(1,094,614,950)
Loss/(gain) due to investment performance	385,776,439	(475,485,083)
(Gain) due to other sources	(48,456,803)	(53,377,418)
Under funded liability end of year	**$ 4,524,158,460**	**$ 2,991,680,344**

DERIVATION OF EXPERIENCE GAIN (LOSS)

	2018	2017
Type of Risk Area		
Risks Related to Assumptions (in millions)		
Economic Risk Areas		
Investment (Loss)/Return	$ (385.8)	$ 475.5
Pay (Decreases)/Increases	(40.1)	104.3
Demographic Risk Areas		
Service Retirements	(19.5)	(21.8)
Early Retirements	(5.3)	(2.6)
Vested Deferred Retirements	(14.5)	(17.8)
Death and Survivor Benefits	(7.7)	(8.2)
Disability Benefits	11.5	9.7
Terminated with Refund	31.2	22.4
Changes due to Experience Study (1)	**-**	**1,094.6**
Change in Discount Rate (2)	**(1,191.0)**	**-**
Risks Not Related to Assumptions (3)	**92.9**	**(32.6)**
Total (Loss)/Gain During Year	**$ (1,528.3)**	**$ 1,623.5**

Regular actuarial valuations give information about the composite change in unfunded actuarial accrued liabilities — whether or not the liabilities are increasing or decreasing and by how much. The objective of a gain and loss analysis is to determine the portion of the change in actuarial condition (unfunded actuarial accrued liabilities) attributable to each risk area. The fact that actual experience differs from assumed experience is to be expected — the future cannot be predicted with 100% precision. The economic risk areas (particularly investment return and pay increases) are volatile. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common.

(1) Reflects the impact of the triennial experience study. The most significant adjustment to the actuarial assumptions was a change in the mortality table.

(2) Board of Trustees changed the discount rate effective January 1, 2019

(3) This is primarily due to rehires of former employees and actual reserve transfers for retirees being (lower)/ higher than the estimated reserve transfers.

SUMMARY OF BENEFITS

This is a brief description of IMRF benefits. Additional conditions and restrictions may apply. A complete description is found in Article 7 of the Illinois Pension Code.

GENERAL

IMRF serves 3,010 employers including cities, villages, counties, school districts, townships, and various special districts, such as parks, forest preserves, and sanitary districts. Each employer contributes to separate accounts to provide future retirement benefits for its own employees.

Employees of these employers are required to participate if they work in an IMRF qualified position. An IMRF qualified position is one that is expected to equal or exceed the employer's annual hourly standard; the standard is either 600 or 1,000 hours a year.

IMRF has three benefit plans. The vast majority of IMRF members participate in the Regular plan. The Sheriff's Law Enforcement Personnel (SLEP) plan is for sheriffs, deputy sheriffs, and selected police chiefs. Forest preserve districts may adopt the SLEP plan for their law enforcement personnel. Counties could adopt the Elected County Official (ECO) plan for their elected officials prior to August 8, 2011. The ECO plan was closed to new participants after that date. After a county adopted the ECO plan, participation was optional for the elected officials of that county.

All three IMRF benefit plans have two tiers. Tier 2 benefits are lower than Tier 1, and cost about 40% less to provide. All IMRF members initially hired on or after January 1, 2011, are in Tier 2.

Both the member and the employer contribute toward retirement benefits. Members contribute a percentage of their salary as established by the Pension Code. The percentage depends on the plan in which the member participates. Regular members contribute 4.5%. SLEP and ECO members contribute 7.5%. Members also have the option of making voluntary after-tax contributions up to 10% of their salary. Employer contribution rates are actuarially calculated annually for each employer. Employers pay most of the cost for member and survivor pensions and all of the cost for supplemental retirement, death, and disability benefits. All contributions are pooled for investment purposes.

Since 1982, investment returns account for 62% of IMRF revenue.

VESTING

TIER 1

Members are vested for pension benefits when they have at least eight years of qualifying service credit. SLEP members are vested for a SLEP pension when they have at least 20 years of SLEP service credit. SLEP members with more than eight years of service, but less than 20 years of SLEP service, will receive a Regular pension.

Revised ECO members (those who joined the ECO plan after January 25, 2000) are vested with eight or more years of ECO service credit in the same elected county position. Revised ECO members with eight years of service, but less than eight years in the same elected county office, will receive a Regular pension.

TIER 2

Members are vested for pension benefits when they have at least 10 years of qualifying service credit. SLEP members are vested for a SLEP pension when they have at least 10 years of SLEP service credit. ECO members (those who joined the ECO plan after January 1, 2011, and before August 8, 2011) are vested with 10 or more years of total service credit with at least eight years in the same elected county position. ECO members with at least 10 years of total service credit, but less than eight years of service in the same elected county office, will receive a Regular pension.

REFUNDS

Non-vested members who stop working for an IMRF employer can receive a lump sum refund of their IMRF member contributions. Vested members can receive a lump sum refund of their IMRF member contributions if they stop working for an IMRF employer prior to age 55, or age 62 for Tier 2 members. Vested members age 55 or older (62 or older for Tier 2 members) may receive separation refunds if the member rolls over the refund into another defined benefit retirement plan for the purpose of purchasing service credit.

Members who retire without an eligible spouse (married to or in a civil union with the member at least one year before the member terminates IMRF participation) may receive a refund of their surviving spouse contributions with interest or an annuity.

If, upon a member's death, all of the member contributions with interest were not paid as a refund or pension to either the member or his or her spouse, the beneficiary will receive any balance of the member's account.

PENSION CALCULATIONS

A REGULAR IMRF PENSION IS:

- 1-2/3% of the final rate of earnings for each of the first 15 years of service credit, plus
- 2% for each year of service credit in excess of 15 years.

The maximum pension at retirement cannot exceed 75% of the final rate of earnings.

A SLEP PENSION IS:

- 2-1/2% of the final rate of earnings for each year of service.

The maximum pension at retirement cannot exceed 80% (75% for Tier 2) of the final rate of earnings.

AN ECO PENSION IS:

- 3% of the final rate of earnings for each of the first eight years of service, plus
- 4% for each year of service between eight and 12 years of service, plus
- 5% for years of service credit over 12.

The maximum pension at retirement cannot exceed 80% of the final rate of earnings.

A money purchase minimum pension is provided if it exceeds the normal formula amount. The money purchase minimum is the amount that may be purchased by 2.4 times the member's applicable accumulated contributions, including interest thereon.

A reversionary pension option is provided to members at retirement. This option permits the member to revert a portion of his pension to one other person. This election is irrevocable.

An IMRF pension is paid for life.

FINAL RATE OF EARNINGS

TIER 1

The final rate of earnings for Regular and SLEP members is the highest total earnings during any 48 consecutive months within the last 10 years of IMRF service, divided by 48, or the total lifetime earnings divided by the total lifetime number of months of service, whichever is higher. The final rate of earnings for ECO members is the annual salary of the ECO member on the day he or she retires. For Revised ECO members, the final rate of earnings is the highest total earnings during any 48 consecutive months within the last 10 years of IMRF service, divided by 48, for each office held.

TIER 2

The final rate of earnings for Regular and SLEP members is the highest total earnings during any 96 consecutive months within the last 10 years of IMRF service, divided by 96, or the total lifetime earnings divided by the total lifetime number of months of service, whichever is higher. For ECO members who joined the plan after January 1, 2011, and before August 8, 2011, the final rate of earnings is the highest total earnings during any 96 consecutive months within the last 10 years of IMRF service, divided by 96, for each office held. Pensionable earnings are initially capped at $106,800, increases annually by 3% or one-half of the increase of the Consumer Price Index, whichever is less. The pensionable earnings cap for 2018 was $113,644.91 and for 2019 will be $114,951.83. For Tier 2 SLEP members, overtime compensation is excluded from pensionable earnings.

RETIREMENT ELIGIBILITY

TIER 1

Normal retirement for an unreduced pension is:

- Age 60 with eight or more years of service, or 35 or more years of service at age 55,
- Age 50 with 20 or more years of SLEP service for members with SLEP service,
- Age 55 with eight or more years of service for members with ECO service, or
- Age 55 with eight or more years of service in the same elected county office for members with Revised ECO service.

Regular members may retire as early as age 55 with a reduced pension. The reduction is the lesser of:

- 1/4% for each month the member is under age 60, or
- 1/4% for each month of service less than 35 years.

TIER 2

Normal retirement for an unreduced pension is:

- Age 67 with 10 or more years of service, or 35 or more years of service at age 62,
- Age 55 with 10 or more years of SLEP service for members with SLEP service, or
- Age 67 with eight or more years of service in the same elected county official for members with ECO service (ten years total service).

Regular members may retire as early as age 62 with a reduced pension. The reduction is the lesser of:

- 1/2% for each month the member is under age 67, or
- 1/2% for each month of service less than 35 years.

SLEP members may retire as early as age 50 with a reduced pension. The reduction is 1/2% for each month the member is under age 55.

SERVICE CREDIT

Service credit is the total time under IMRF, stated in years and fractions. Service is credited monthly while the member is working, receiving IMRF disability benefits, or on IMRF's Benefit Protection Leave. For revised ECO members, the ECO benefit formula is limited to service in an elected office.

Members may qualify for a maximum of one year of additional service credit for unused, unpaid sick leave accumulated with the last employer. Members who retire from a school district may utilize unused sick leave from all school district employers. This additional service credit applies only for members leaving employment for retirement. The service credit is earned at the rate of one month for every 20 days of unused, unpaid sick leave or fraction thereof.

IMRF is a participating plan under the Reciprocal Act, as are all other Illinois public pension systems, except local police and fire pension plans. Under the Reciprocal Act, service credit from multiple pension systems of at least one year may be considered together at the date of retirement or death for the purpose of determining eligibility for and amount of benefits.

POST-RETIREMENT INCREASES

TIER 1

Members in all plans receive an annual 3% increase based upon the original amount of the pension. The increase for the first year is prorated for the number of months the member was retired.

TIER 2

Members in all plans receive an annual increase based upon the original amount of the pension of 3% or one-half of the increase in the Consumer Price Index, whichever is less. For Regular and ECO members, the annual increases do not begin until the retiree reaches the age of 67 or after 12 months of retirement, whichever is later. For SLEP members the increases begin at age 60 or after 12 months of retirement, whichever is later.

EARLY RETIREMENT INCENTIVE (ERI)

IMRF employers may offer an Early Retirement Incentive (ERI) program to their employees who are over 50 years of age (57 for Tier 2 Regular and ECO members) and have at least 20 years of service credit. Eligible members may purchase up to five years of service credit and age. Employers must pay off the additional ERI liability within 10 years. Subsequent ERI programs may be offered by an employer only after the liability for the previous ERI program is paid. An employer may only offer an ERI program once every five years.

SUPPLEMENTAL RETIREMENT BENEFITS

Each July, IMRF provides a supplemental benefit payment, or "13th Payment," to IMRF retirees and surviving spouses who have received IMRF pension payments for the preceding 12 months. The supplemental benefit payment amount will vary depending on the dollar amount to be distributed and the number of persons eligible. The supplemental benefit payment amount is decreasing annually because the number of retirees is increasing while the pool of available money is decreasing.

DISABILITY BENEFITS

Regular and SLEP members are eligible for a maximum of 30 months of temporary disability benefits if they:

- Have at least 12 consecutive months of service credit since being enrolled in IMRF,
- Have at least nine months of service credit in the 12 months immediately prior to becoming disabled,
- Are unable to perform the duties of any position which might reasonably be assigned by the IMRF employer because of any illness, injury, or other physical or mental condition, and
- Are not receiving any earnings from any IMRF employer.

Regular and SLEP members are eligible for total and permanent disability benefits until they become eligible for full Social Security Old Age benefits if they:

- Have exhausted their temporary disability benefits,
- Have a medical condition which did not pre-exist their IMRF participation or they have five years of IMRF participation without being on temporary disability, and
- Are unable to work in any gainful activity for any employer.

The monthly disability benefit payment is equal to 50% of the average monthly earnings based on the 12 months prior to the month the member became disabled.

ECO members are eligible for ECO disability benefits if they:

- Have at least 12 consecutive months of service credit since being enrolled in IMRF,
- Are in an elected county office at the time the disability occurred,
- Are making ECO contributions at the time the disability occurred,
- Are unable to reasonably perform the duties of their offices,
- Have resigned their offices, and
- Have two licensed physicians, approved by IMRF, certify that the ECO member is permanently disabled.

The monthly ECO disability benefit is equal to the greater of:

- 50% of the annualized salary payable on the last day of ECO participation divided by 12 or,
- The retirement benefit earned to date.

Disability benefits under all plans are offset by Social Security or workers' compensation benefits. If disabled members receive Social Security disability and/or workers' compensation benefits, IMRF pays the difference between those benefits and 50% of the member's average monthly earnings. However, IMRF will always pay a minimum monthly benefit of $10. Members on disability earn pension service credit as if they were working.

DEATH BENEFITS

Beneficiaries of active members who have more than one year of service, or whose deaths are job-related, are entitled to lump sum IMRF death benefits. If the member was not vested, or vested without an eligible spouse, the death benefit is equal to one year's earnings (limited to pensionable earnings cap for Tier 2 members) plus any balance in the member's account. Eligible spouses of deceased, vested, active members may choose the lump sum or a monthly surviving spouse pension.

Beneficiaries of inactive, non-vested members receive a lump sum payment of any balance in the member's account, including interest. If the beneficiary is an eligible spouse of an inactive, vested member age 55 or older, the spouse may choose between the lump sum payment or a death benefit of $3,000, plus a monthly surviving spouse pension. Beneficiaries of retired members receive a $3,000 death benefit. Eligible spouses also receive a surviving spouse pension.

SURVIVING SPOUSE PENSION

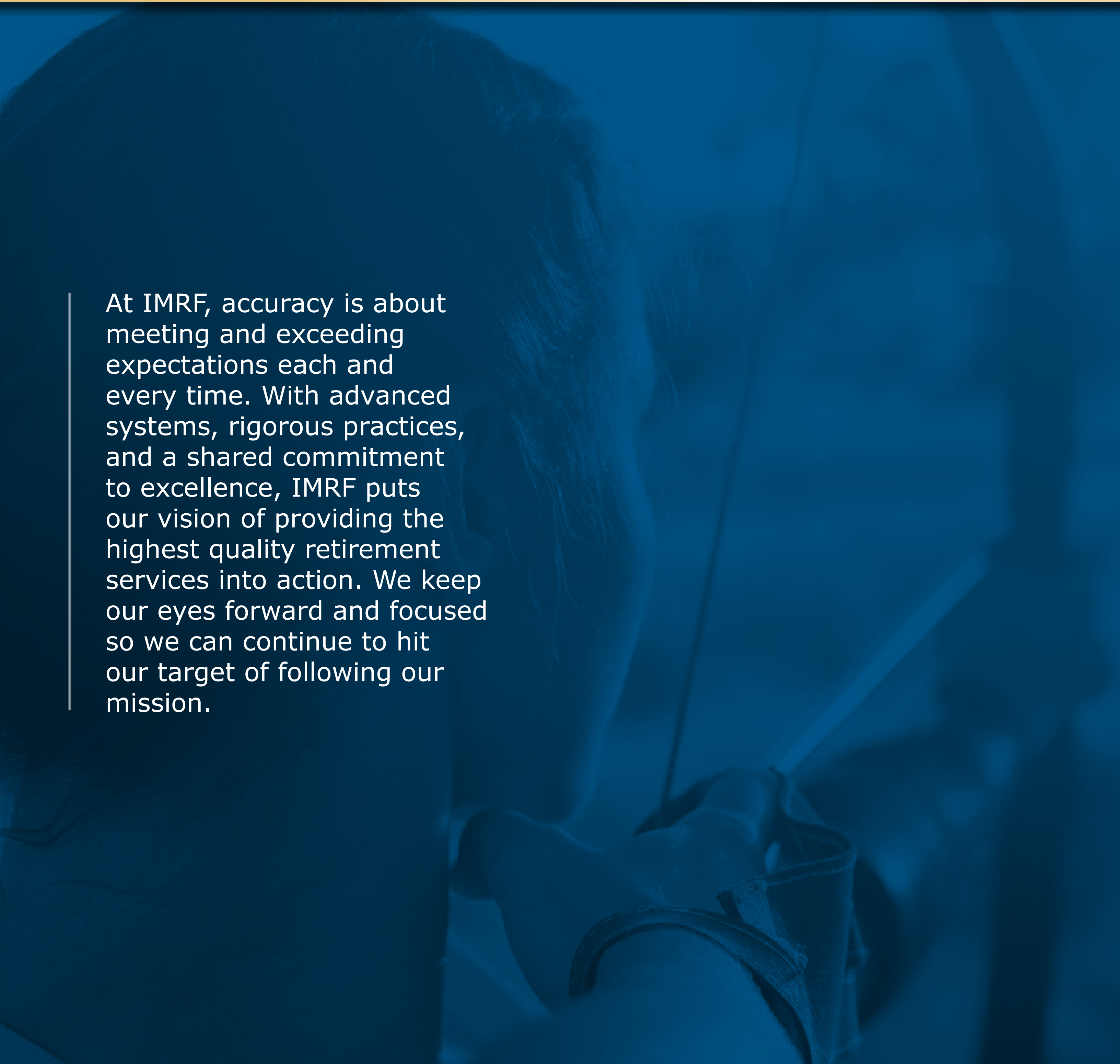
For Regular and SLEP members, a surviving spouse's monthly pension is one-half (66-2/3% for Tier 2) of the member's pension.

For ECO members, a surviving spouse's monthly pension is 66-2/3% of the member's pension. This pension is payable once the surviving spouse becomes 50 years old. If the spouse is caring for the member's minor, unmarried children (the age 50 requirement does not apply), the spouse will receive:

- A monthly pension equal to 30% of the ECO member's salary at time of death, plus
- 10% of the ECO member's salary at time of death for each minor, unmarried child. The maximum total monthly benefit payable to spouse and children cannot exceed 50% of the ECO member's salary at the time of death, or
- A monthly pension equal to 66-2/3% of the pension the member earned.

Surviving spouse pensions under all plans are increased each January 1. The increase is based on the original amount of the pension. The increase for the first year is prorated for the number of months the surviving spouse or the member received a pension. For Tier 1, the annual increase is three percent. For Tier 2, the annual increase is 3% or one-half the increase in the Consumer Price Index, whichever is less.

ACCURACY



At IMRF, accuracy is about meeting and exceeding expectations each and every time. With advanced systems, rigorous practices, and a shared commitment to excellence, IMRF puts our vision of providing the highest quality retirement services into action. We keep our eyes forward and focused so we can continue to hit our target of following our mission.

STATISTICAL

TABLE VIII

Changes in Fiduciary Net Position ***(Last ten years)***

	Additions					
		Employer Contributions				
Calendar Year	Investment Earnings Net of Direct Investment Expense	Dollars	Percent of Annual Covered Payroll	Member Contributions	Other	Total Additions
2009	$ 4,423,550,741	$660,399,408	10.22%	$ 324,070,795	$ 9,148	$ 5,408,030,092
2010	2,976,549,317	770,142,278	12.05	324,901,985	7,032	4,071,600,612
2011	(92,930,304)	800,804,253	12.45	327,680,889	9,852	1,035,564,690
2012	3,393,689,073	883,216,281	13.60	330,814,542	12,037	4,607,731,933
2013	5,583,120,005	930,969,056	14.10	338,934,421	8,455	6,853,031,937
2014	2,001,420,871	923,382,825	13.72	351,089,445	19,157	3,275,912,298
2015	200,727,209	900,476,884	13.01	368,005,271	464,050	1,469,673,414
2016*	2,664,864,774	933,937,321	13.33	380,385,015	12,340	3,979,199,450
2017*	5,718,221,626	903,482,031	12.68	393,747,860	13,200	7,015,464,717
2018	(1,747,217,132)	947,568,823	12.94	413,901,691	13,850	(385,732,768)

	Deductions				
Calendar Year	Benefits	Refunds	Administrative Expenses	Total Deductions	Change in Fiduciary Net Position
2009	$ 1,077,852,453	$ 27,426,079	$ 21,967,308	$ 1,127,245,840	$ 4,280,784,252
2010	1,178,030,534	32,201,577	22,318,493	1,232,550,604	2,839,050,008
2011	1,284,405,609	32,900,105	23,086,712	1,340,392,426	(304,827,736)
2012	1,389,815,471	34,142,193	24,508,053	1,448,465,717	3,159,266,216
2013	1,503,374,148	36,944,214	25,463,299	1,565,781,661	5,287,250,276
2014	1,626,821,250	39,191,090	26,431,652	1,692,443,992	1,583,468,306
2015	1,758,184,358	36,748,509	28,707,981	1,823,640,848	(353,967,434)
2016*	1,902,139,899	37,690,098	38,702,237	1,978,532,233	2,000,667,217
2017*	2,043,613,657	42,552,060	31,038,134	2,117,203,851	4,898,260,866
2018	2,194,961,403	48,028,752	32,213,168	2,275,203,323	(2,660,936,091)

**Restated due to adoption of GASB Statement No. 75, Accounting and Financial Reporting for Post-employment Benefits Other than Pensions*

TABLE IX

Benefit Expense by Type (Last ten years)

Calendar Year	Death				Disability	
	Supplemental	Refund	Burial	Residual	Permanent	Temporary
2009	$ 8,486,871	$ 9,096,938	$ 7,813,566	$ 961,645	$ 4,211,002	$ 6,649,144
2010	10,313,306	8,547,634	7,726,161	1,439,264	4,286,549	7,205,576
2011	9,664,027	9,184,487	8,435,071	1,328,589	4,157,671	7,471,493
2012	10,377,472	9,641,181	8,103,523	1,711,659	3,878,005	7,012,081
2013	9,681,776	9,155,295	8,369,090	1,850,712	3,949,374	7,265,126
2014	8,159,700	9,697,948	8,941,815	1,785,250	3,688,052	7,214,455
2015	7,115,125	9,142,480	9,578,310	1,935,771	3,526,820	6,267,477
2016	9,066,318	9,154,917	9,350,020	2,199,715	3,480,432	6,227,065
2017	7,632,879	9,128,002	9,832,334	2,077,934	3,058,374	6,393,159
2018	9,957,323	10,217,863	10,111,870	2,516,138	3,065,933	6,374,393

Calendar Year	Annuities				Refunds		
	Retirement	Surviving Spouse	Beneficiary	Supplemental	Separation	Other	Total
2009	$ 936,104,649	$ 61,615,626	$ 1,751,952	$ 41,161,060	$ 25,974,794	$ 1,451,285	$1,105,278,532
2010	1,027,761,178	66,174,661	1,962,756	42,613,449	30,440,247	1,761,330	1,210,232,111
2011	1,130,473,927	71,188,507	2,208,709	40,293,128	31,515,077	1,385,028	1,317,305,714
2012	1,229,614,161	76,545,359	2,455,082	40,476,948	31,482,985	2,659,208	1,423,957,664
2013	1,337,638,438	81,839,499	2,669,383	40,955,455	33,987,457	2,956,757	1,540,318,362
2014	1,453,666,782	88,033,643	2,944,873	42,688,732	35,250,093	3,940,997	1,666,012,340
2015	1,580,255,793	93,884,986	3,233,682	43,243,914	32,618,840	4,129,669	1,794,932,867
2016	1,713,504,074	100,899,288	3,539,931	44,718,138	30,955,185	6,734,913	1,939,829,996
2017	1,849,014,473	108,313,203	3,831,348	44,331,951	33,412,072	9,139,988	2,086,165,717
2018	1,987,168,560	115,681,971	4,185,900	45,681,452	35,164,167	12,864,585	2,242,990,155

TABLE X
Net Cash Flow from Contributions After Benefits ***(Last ten years)***

Year	Employer Contributions	Member Contributions	Total Contributions	Total Benefit Payments	Net Cash Flow
2009	$ 660,399,408	$ 324,070,795	$ 984,470,203	$ 1,105,278,532	$ (120,808,329)
2010	770,142,278	324,901,985	1,095,044,263	1,210,232,111	(115,187,848)
2011	800,804,253	327,680,889	1,128,485,142	1,317,305,714	(188,820,572)
2012	883,216,281	330,814,542	1,214,030,823	1,423,957,664	(209,926,841)
2013	930,969,056	338,934,421	1,269,903,477	1,540,318,362	(270,414,885)
2014	923,382,825	351,089,445	1,274,472,270	1,626,821,250	(352,348,980)
2015	900,476,884	368,005,271	1,268,482,155	1,794,932,867	(526,450,712)
2016	933,937,321	380,385,015	1,314,322,336	1,939,829,996	(625,507,660)
2017	903,482,031	393,747,860	1,297,229,891	2,086,165,717	(788,935,826)
2018	947,568,823	413,901,691	1,361,470,514	2,242,990,155	(881,519,641)

TABLE XI
Operating Statistics - Number of Initial Benefit Payments ***(Last ten years)***

Calendar Year	Annuity	Disability	Death	Refund	Total
2009	5,467	2,349	3,149	10,593	21,558
2010	6,541	2,407	3,141	10,219	22,308
2011	6,751	2,338	3,308	10,001	22,398
2012	6,845	2,207	3,288	9,864	22,204
2013	7,791	2,166	3,228	10,530	23,715
2014	7,959	2,123	3,413	11,139	24,634
2015	8,347	1,936	3,644	10,571	24,498
2016	8,222	1,841	3,599	10,125	23,787
2017	8,372	1,679	3,680	10,775	24,506
2018	8,267	1,655	3,795	11,111	24,828

TABLE XII
Number of Employees *(Last ten years)*

Calendar Year	Administration	Internal Audit	Human Resources	Finance	Investments	Legal	Communications	Member Services	Benefits	Information Services	Program Management Office	Office Services	Total
2009	4	1	4	31	11	4	6	26	26	41	-	22	176
2010	4	1	4	30	11	4	6	26	27	39	-	22	174
2011	4	4	4	27	10	4	7	26	28	34	6	22	176
2012	4	4	4	28	9	4	7	28	28	34	4	22	176
2013	4	7	3	29	10	4	6	30	28	35	5	21	182
2014	4	7	4	27	13	5	7	33	28	33	5	19	185
2015	4	7	4	27	13	5	9	35	31	34	6	19	194
2016	5	8	4	20	14	5	9	37	31	32	6	19	190
2017	6	8	4	25	14	5	8	38	35	40	-	19	202
2018	6	7	4	25	14	6	8	37	28	42	-	19	196

**The Program Management Office merged with Information Systems 2017*

TABLE XIII
Number of Actively Participating Employers *(Last ten years)*

Calendar Year End	Cities	Villages	Counties	School Districts	Townships	Other	Total
2009	256	407	101	865	477	844	2,950
2010	257	410	101	864	477	854	2,963
2011	257	411	101	862	479	854	2,964
2012	258	411	101	859	479	861	2,969
2013	258	413	101	858	480	867	2,977
2014	258	414	101	855	478	870	2,976
2015	259	415	101	850	478	869	2,972
2016	259	417	101	851	488	871	2,987
2017	259	419	101	850	478	890	2,997
2018	260	419	101	850	481	899	3,010

TABLE XIV

Principal Participating Employers (Current year and ten years ago)

Employer	2018 Active Members	2018 Rank	2018 Percentage of Total Active Members	2009 Active Members	2009 Rank	2009 Percentage of Total Active Members
DuPage County	3,062	1	1.73%	3,147	1	1.74%
Will County	2,691	2	1.52	2,344	3	1.29
Lake County	2,609	3	1.48	2,837	2	1.56
Union School District 46	2,355	4	1.33	1,781	5	0.98
Rockford School District 205	1,722	5	0.98	1,612	6	0.89
Winnebago County	1,515	6	0.86	1,832	4	1.01
Township High School District 211	1,429	7	0.81	N/A*	N/A*	N/A*
Kane County	1,377	8	0.78	1,353	8	0.75
McHenry County	1,292	9	0.73	1,322	9	0.73
Peoria School District 150	1,285	10	0.73	N/A*	N/A*	N/A*
Plainfield School District 202	N/A**	N/A**	N/A**	1,366	7	0.75
City of Springfield	N/A**	N/A**	N/A**	1,301	10	0.72%

**In 2009, this entity did not rank in the Top Ten.*

*** In 2018, this entity did not rank in the Top Ten.*

TABLE XV

Number of Actively Participating Members (Last ten years)

Calendar Year End	Male Participants	Female Participants	Total
2009	66,640	114,740	181,380
2010	65,543	111,160	176,703
2011	65,332	110,512	175,844
2012	64,918	109,853	174,771
2013	64,889	108,936	173,825
2014	65,029	108,939	173,968
2015	65,104	108,994	174,098
2016	65,379	109,640	175,019
2017	65,085	110,480	175,565
2018	65,120	111,397	176,517

TABLE XVI
Participating Members' Length of Service **(Last ten years)**

Calendar Year	Total Active Members	Under 1 Year	1 to 7 Years	8 to 14 Years	15 Years and Over	Percent Vested
2009	181,380	14,950	77,606	46,749	42,075	49.0%
2010	176,703	12,928	73,980	46,906	42,889	50.8
2011	175,844	15,158	70,518	46,459	43,709	51.3
2012	174,771	15,994	67,735	45,777	45,265	52.1
2013	173,825	16,990	65,389	45,062	46,384	52.6
2014	173,968	18,391	63,714	44,256	47,607	52.8
2015	174,098	18,515	63,413	43,470	48,700	52.9
2016	175,019	18,732	64,487	57,727	34,073	52.5
2017	175,565	19,347	67,173	39,978	49,067	50.7
2018	176,517	20,535	69,940	37,905	48,137	48.7

TABLE XVII
Active Members by Age

	All Plans			Sheriff's Law Enforcement Personnel			Elected County Official		
Age	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Under 20	249	303	552	1	1	2	-	-	-
20 to 29	8,431	10,863	19,294	478	73	551	-	-	-
30 to 39	12,969	18,227	31,196	1,124	176	1,300	2	-	2
40 to 49	14,055	26,244	40,299	1,257	207	1,464	11	6	17
50 to 54	8,423	17,316	25,739	383	55	438	15	6	21
55 to 59	9,203	18,740	27,943	176	40	216	16	6	22
60 to 69	10,044	17,907	27,951	108	18	126	27	10	37
70 and Over	1,746	1,797	3,543	7	-	7	2	1	3
Total	**65,120**	**111,397**	**176,517**	**3,534**	**570**	**4,104**	**73**	**29**	**102**

TABLE XVIII
Annuitants by Age

	Retirees			Surviving Spouses			Beneficiaries		
Age	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Under 55	299	66	365	13	103	116	106	159	265
55 to 59	3,346	5,624	8,970	32	266	298	20	83	103
60 to 64	7,106	13,318	20,424	157	505	662	32	69	101
65 to 69	9,483	19,314	28,797	334	847	1,181	21	60	81
70 to 74	7,445	16,000	23,445	548	1,209	1,757	23	58	81
75 to 79	5,078	11,108	16,186	725	1,616	2,341	11	37	48
80 to 84	3,360	7,350	10,710	824	1,748	2,572	6	38	44
85 to 89	1,754	4,554	6,308	767	1,612	2,379	4	18	22
90 to 94	764	2,334	3,098	433	1,014	1,447	2	8	10
95 to 99	153	650	803	116	344	460	1	2	3
100 and over	12	104	116	15	53	68	-	-	-
Total	**38,800**	**80,422**	**119,222**	**3,964**	**9,317**	**13,281**	**226**	**532**	**758**

TABLE XIX
Average Initial Benefit Payment Amounts ***(Last ten years)***

	Single Sum Payments		Recurring Payments	
Calendar Year	**Separation Refunds**	**Lump Sum Death Benefit**	**Annual Disability (1)**	**Annual Retirement (2)**
2009	$ 2,459	$ 28,763	$ 17,359	$ 16,200
2010	2,987	30,817	17,830	17,014
2011(3)	3,154	30,592	17,958	16,490
2012(3)	3,218	34,500	18,475	15,718
2013(3)	3,229	34,853	18,898	15,781
2014(3)	3,164	35,795	20,048	16,877
2015(3)	3,127	35,141	19,696	17,301
2016(3)	3,075	32,018	20,386	17,128
2017(3)	3,119	34,645	20,632	17,878
2018(3)	3,202	37,502	21,297	18,480

(1) Prior to Social Security and workers' compensation offsets.

(2) Includes voluntary additional benefits.

(3) Includes Tier 1 and Tier 2.

TABLE XX
Analysis of Initial Retirement Benefits: Regular Plan (Last ten years)

	Years of Credited Service							
	8-9	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35+**	**Total**
2009								
Avg Monthly Annuity	$ 317	$ 509	$ 891	$1,364	$1,951	$2,549	$3,712	$1,389
Avg Monthly FRE	$2,253	$2,565	$3,052	$3,553	$4,049	$4,419	$5,305	$3,413
Number of Retirees	551	804	682	717	497	444	371	4,066
2010								
Avg Monthly Annuity	$ 340	$ 513	$ 895	$1,410	$1,935	$2,598	$3,703	$1,421
Avg Monthly FRE	$2,401	$2,583	$3,100	$3,686	$4,022	$4,514	$5,295	$3,486
Number of Retirees	601	1,029	767	826	645	524	459	4,851
2011								
Avg Monthly Annuity	$ 339	$ 543	$ 906	$1,352	$1,929	$2,731	$3,879	$1,437
Avg Monthly FRE	$2,401	$2,764	$3,163	$3,499	$4,044	$4,711	$5,529	$3,542
Number of Retirees	578	1,056	792	834	641	553	426	4,880
2012								
Avg Monthly Annuity	$ 345	$ 539	$ 848	$1,407	$1,961	$2,807	$3,780	$1,391
Avg Monthly FRE	$2,473	$2,758	$2,946	$3,670	$4,083	$4,808	$5,436	$3,503
Number of Retirees	576	1,096	895	774	636	493	398	4,868
2013								
Avg Monthly Annuity	$ 345	$ 560	$ 886	$1,425	$1,968	$2,812	$3,875	$1,378
Avg Monthly FRE	$2,445	$2,798	$3,087	$3,673	$4,109	$4,836	$5,555	$3,518
Number of Retirees	723	1,312	1,080	943	770	491	461	5,780
2014								
Avg Monthly Annuity	$ 361	$ 562	$ 930	$1,374	$2,020	$2,876	$3,960	$1,439
Avg Monthly FRE	$2,559	$2,782	$3,244	$3,573	$4,196	$4,947	$5,679	$3,608
Number of Retirees	687	1,251	1,206	984	808	455	551	5,942
2015								
Avg Monthly Annuity	$ 358	$ 568	$ 949	$1,429	$2,092	$2,873	$4,029	$1,479
Avg Monthly FRE	$2,549	$2,826	$3,311	$3,726	$4,347	$4,968	$5,756	$3,690
Number of Retirees	792	1,310	1,241	983	818	515	615	6,274
2016								
Avg Monthly Annuity	$ 367	$ 571	$ 934	$1,438	$2,135	$2,898	$4,224	$1,470
Avg Monthly FRE	$2,600	$2,865	$3,264	$3,738	$4,448	$5,027	$6,000	$3,708
Number of Retirees	786	1,252	1,323	974	793	490	547	6,165
2017								
Avg Monthly Annuity	$ 374	$ 569	$ 965	$1,495	$2,186	$3,059	$4,161	$1,548
Avg Monthly FRE	$2,661	$2,868	$3,341	$3,887	$4,522	$5,301	$5,879	$3,825
Number of Retirees	694	1,243	1,345	1,143	823	549	580	6,377
2018								
Avg Monthly Annuity	$ 384	$ 591	$1,004	$1,471	$2,245	$3,128	$4,263	$1,603
Avg Monthly FRE	$2,713	$2,966	$3,428	$3,826	$4,615	$5,386	$6,007	$3,913
Number of Retirees	561	1,232	1,305	1,204	786	594	549	6,231

FRE = Final Rate of Earnings used to calculate retirement benefit.

Note: This schedule excludes members retiring with money purchase benefits, reciprocal benefits, or multiple plans.

TABLE XXI

Analysis of Initial Retirement Benefits: Sheriff's Law Enforcement Personnel (SLEP) Plan **(Last ten years)**

	Years of Credited Service				
	20-24	25-29	30-34	35+	Total
2009					
Avg Monthly Annuity	$3,358	$4,419	$5,503	$4,967	$4,454
Avg Monthly FRE	$6,613	$6,569	$7,286	$6,209	$6,837
Number of Retirees	21	17	22	1	61
2010					
Avg Monthly Annuity	$2,974	$4,598	$5,500	$4,455	$4,347
Avg Monthly FRE	$5,620	$6,996	$7,348	$5,750	$6,636
Number of Retirees	30	43	26	4	103
2011					
Avg Monthly Annuity	$3,682	$4,624	$5,479	$5,015	$4,465
Avg Monthly FRE	$6,833	$6,868	$7,070	$6,269	$6,887
Number of Retirees	36	36	21	2	95
2012					
Avg Monthly Annuity	$3,085	$4,382	$4,844	$3,809	$3,752
Avg Monthly FRE	$6,024	$7,000	$6,363	$5,312	$6,340
Number of Retirees	38	21	11	2	72
2013					
Avg Monthly Annuity	$3,372	$4,639	$4,418	$5,497	$4,130
Avg Monthly FRE	$6,181	$7,101	$6,026	$6,871	$6,547
Number of Retirees	31	27	10	5	73
2014					
Avg Monthly Annuity	$3,439	$5,142	$5,220	$5,868	$4,547
Avg Monthly FRE	$6,430	$7,631	$6,706	$7,448	$6,998
Number of Retirees	39	39	18	6	102
2015					
Avg Monthly Annuity	$3,508	$5,179	$5,511	$7,123	$4,690
Avg Monthly FRE	$6,642	$7,685	$7,480	$8,904	$7,316
Number of Retirees	39	59	18	1	117
2016					
Avg Monthly Annuity	$3,613	$5,241	$6,012	$2,567	$4,825
Avg Monthly FRE	$6,964	$7,692	$7,859	$3,209	$7,448
Number of Retirees	38	59	20	1	118
2017					
Avg Monthly Annuity	$3,796	$5,580	$6,389	$ -	$5,116
Avg Monthly FRE	$7,328	$8,084	$8,436	$ -	$7,889
Number of Retirees	39	59	19	-	117
2018					
Avg Monthly Annuity	$4,092	$5,025	$5,706	$6,995	$4,851
Avg Monthly FRE	$7,575	$7,668	$7,576	$8,744	$7,649
Number of Retirees	46	38	23	4	111

FRE = Final Rate of Earnings used to calculate retirement benefit.

Note: This schedule excludes members retiring with money purchase benefits, reciprocal benefits, or multiple plans.

TABLE XXII

Analysis of Initial Retirement Benefits: Elected County Official (ECO) Plan **(Last ten years)**

	Years of Credited Service							
	8-9	10-14	15-19	20-24	25-29	30-34	35+	Total
2009								
Avg Monthly Annuity	$1,489	$1,987	$2,804	$2,523	-	-	-	$2,241
Avg Monthly FRE	$5,958	$4,358	$4,511	$3,154	-	-	-	$4,247
Number of Retirees	1	7	3	3	-	-	-	14
2010								
Avg Monthly Annuity	$ 123	$1,871	$2,243	$4,672	$4,039	$4,992	$3,872	$2,751
Avg Monthly FRE	$ 497	$4,411	$3,472	$5,859	$5,172	$6,241	$4,841	$4,097
Number of Retirees	4	6	9	5	4	2	1	31
2011								
Avg Monthly Annuity	$ 141	$ 320	$2,787	$4,394	$4,722	-	-	$2,279
Avg Monthly FRE	$ 80	$ 754	$4,182	$5,493	$6,139	-	-	$3,234
Number of Retirees	2	2	3	2	1	-	-	10
2012								
Avg Monthly Annuity	$ 687	$ 845	$ 762	$4,046	-	$4,598	-	$1,990
Avg Monthly FRE	$2,312	$1,934	$1,186	$5,058	-	$5,748	-	$2,967
Number of Retirees	2	9	5	8	-	1	-	25
2013								
Avg Monthly Annuity	$ 992	$1,070	-	$3,590	-	-	-	$2,304
Avg Monthly FRE	$3,958	$2,144	-	$4,487	-	-	-	$3,920
Number of Retirees	4	2	-	6	-	-	-	12
2014								
Avg Monthly Annuity	-	$ 840	$ 553	$2,204	$ 891	$ 330	$3,877	$ 647
Avg Monthly FRE	-	$1,940	$ 779	$2,756	$1,136	$ 413	$4,846	$ 844
Number of Retirees	-	3	7	6	5	1	2	24
2015								
Avg Monthly Annuity	-	$1,204	-	-	-	-	-	$1,204
Avg Monthly FRE	-	$2,988	-	-	-	-	-	$2,988
Number of Retirees	-	2	-	-	-	-	-	2
2016								
Avg Monthly Annuity	-	$ 990	$3,088	$4,568	$4,725	$ 966	-	$3,126
Avg Monthly FRE	-	$2,170	$5,537	$5,711	$5,907	$1,207	-	$4,378
Number of Retirees	-	6	2	6	4	1	-	19
2017								
Avg Monthly Annuity	$ 481	$ 405	$2,323	$1,104	-	-	-	$1,432
Avg Monthly FRE	$1,953	$ 854	$3,403	$1,380	-	-	-	$2,175
Number of Retirees	1	3	6	4	-	-	-	14
2018								
Avg Monthly Annuity	$ 635	$ 2,701	$ 3,295	$ 4,126	$ 6,215	$ 5,565	$12,608	$ 4,414
Avg Monthly FRE	$2,215	$ 5,447	$ 4,632	$ 5,157	$ 7,768	$ 6,957	$15,760	$ 5,941
Number of Retirees	2	1	2	5	2	1	1	14

FRE = Final Rate of Earnings used to calculate retirement benefit.

Note: This schedule excludes members retiring with money purchase benefits, reciprocal benefits, or multiple plans.

TABLE XXIII
Distribution of Current Annuitants by Pension Amount

	Retirement Number of		Survivor Number of		All Annuities Number of	
Monthly Pension Amount	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**
Under $100	860	4,533	539	607	1,399	5,140
$100 to under $250	2,077	10,550	1,143	1,646	3,220	12,196
$250 to under $500	4,210	16,580	1,181	2,403	5,391	18,983
$500 to under $750	3,896	11,908	632	1,542	4,528	13,450
$750 to under $1,000	3,226	8,438	321	1,046	3,547	9,484
$1,000 to under $2,000	8,722	17,548	327	1,896	9,049	19,444
$2,000 to under $3,000	5,542	6,519	36	496	5,578	7,015
$3,000 to under $4,000	3,825	2,510	9	140	3,834	2,650
$4,000 to under $5,000	2,551	1,015	2	47	2,553	1,062
$5,000 to under $6,000	1,632	453	-	13	1,632	466
$6,000 and over	2,259	368	-	13	2,259	381
Total	**38,800**	**80,422**	**4,190**	**9,849**	**42,990**	**90,271**

Note: Counts do not include disabilities.

2017-2019 STRATEGIC OBJECTIVES

IMRF's Strategic Plan for 2017-2019 includes four Key Result Areas that address internal and external strategic advantages, challenges, and opportunities. The Strategic Plan not only highlights the four Strategic Objectives, it also provides an overview of the key strategies designed to support the objectives.

2017-2019

STRATEGIC PLAN

Key Result Area: Financial Health

Strategic Objective: To achieve and maintain a funding level that sustains the Plan

- Achieving stable/declining employer contribution rates
- Achieving top decile funding level on a market-value basis relative to a universe of public pension funds
- Achieving progress toward 100% funding
- Achieving or exceeding the assumed annual rate of return over the long term
- Outperforming the total portfolio benchmark

Key Result Area: Customer Engagement

Strategic Objective: To foster and maintain engaged members and employers

- Achieving 90% "Very Likely to Promote" rating on member engagement survey
- Achieving 90% "Very Likely to Promote" rating on employer engagement survey

Key Result Area: Workforce Engagement

Strategic Objective: To foster and maintain an engaged workforce

- Achieving top decile ranking on the Employee Engagement Survey
- Achieving employee turnover levels below averages as measured by CompData Surveys

Key Result Area: Operational Excellence

Strategic Objective: To provide world class customer service at a reasonable cost

- Achieving top decile "Overall Service Score" ranking for the CEM Benchmarking Survey
- Achieving top decile "American Customer Satisfaction Index" ranking for the Cobalt Retirement Fund Benchmarking Survey
- Achieving 90% "Overall Satisfaction" ratings on member and employer "Voice of the Customer" surveys
- Achieving per-member-cost at or below the median of the CEM administrative cost measure

IMRF will continue to develop and implement Strategic Plans to periodically reassess the best direction to take in fulfilling its promise of world-class service to our members, employers, and stakeholders.

IMRF

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