

Illinois Municipal Retirement Fund

Senate Committee on Pensions and Investments

Brian Collins, *IMRF Executive Director*

Dhvani Shah, *IMRF Chief Investment Officer*

Rosa Perez, *IMRF Investment Officer- Emerging Manager Program and Total Portfolio*

October 23rd and 24th, 2019



Agenda

1. Progress on Diversity Since Last Year
2. Commitment to Diverse Future
3. Commitment to Illinois
4. Appendix

1. Progress on Diversity Since Last Year

A. We committed to focus on fees

B. We committed to doing better

A. IMRF is Focused on Fees

IMRF Investment Policy: adopted a minimum goal as a percentage of total fees paid which is equal to the percentage goal for assets under management (AUM).

Goals for Minority and Emerging Investment Managers by Investment Manager Classification			
Minority Manager (any AUM)			Emerging Manager (AUM \$10 million to \$10 billion)
<u>Investment Manager Classification</u>	<u>Minimum Goal as a Percentage of Total Fund Market Value</u>	<u>Minimum Goal as a Percentage of Total Fees</u>	<u>Minimum Goal as a Percentage of Total Fund Market Value</u>
Minority Owned Businesses	13%	N/A	13%
Women Owned Businesses	6%	N/A	6%
Businesses Owned by a Person with a Disability	1%	N/A	1%
Total Aspirational Goal	20%	20%	20%

2018 Investment Management Fees

\$32.1 million = 25.62%

Classification	Minority \$ Fees Paid	Minority % of Fees Paid	% of Total Fees
African American	\$18,518,445	57.7%	14.78%
Latino	6,461,453	20.1%	5.16%
Asian	779,673	2.4%	0.62%
Women	6,224,619	19.4%	4.97%
Disabled	120,659	0.4%	0.10%
Total	\$32,104,849	100%	25.62%

Asset Class	Total Minority Fees Paid in Asset Class	Total Fees Paid in Asset Class	Minority % of AUM in Asset Class	Minority % of Fees Paid in Asset Class
Domestic Equity	\$1,964,257	\$33,538,993	6.78%	5.86%
Fixed Income	8,939,574	15,794,593	39.48%	56.60%
International Equity	7,230,863	24,913,771	23.49%	29.02%
Alternatives	9,954,401	19,828,165	28.78%	50.20%
Real Estate	4,015,755	29,344,725	12.82%	13.68%
Total	\$32,104,849	\$125,329,384	n/a	25.62%

*Total fees paid by asset class includes \$1,174,439 for Agriculture and \$734,698 for Timber

YTD 2019 Minority Equity Brokerage Fees

\$2 Million – 28.5%

Asset Class	YTD Commissions	YTD Minority Commissions	Minimum Goal*	Actual Minority Commissions Percentage
U.S. Equities	\$1,286,211	\$444,305	25.00%	34.54%
U.S. Large-Cap Equities	\$489,608	\$267,452	30.00%	54.63%
International Equities	\$1,225,624	\$542,484	20.00%	44.26%
International Small-Cap Equities	\$101,146	\$16,144	5.00%	15.96%
Global Listed Infrastructure	\$3,355,850	\$740,491	20.00%	22.07%
Equity Commingled Accounts - Passive	\$139,653	\$29,908	10.00%	21.42%
Equity Commingled Accounts - Active	\$561,986	\$589	Best Efforts	0.10%
Emerging Market Equities	N/A	N/A	5.00%	0.00%
Total Public Equities	\$7,160,078	\$2,041,373		28.51%

Classification	YTD Minority Commissions Paid	% of Total Commissions Paid (YTD 6/30/19)
African American	563,329	7.87%
Asian American	21,940	0.31%
Disabled	595,680	8.32%
Latino	168,774	2.36%
Women	691,650	9.66%
Total Minority	\$2,041,373	28.51%

*Note: Transition Managers are required to meet Minimum Goals.

B. IMRF is Committed to Doing Better

Assets Managed by Minority Managers (in millions)

\$10.2 Billion – 23.8%



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	6/2019
IMRF \$ AUM	13,876	16,843	18,496	20,129	23,002	24,707	18,412	22,347	25,546	24,831	27,887	33,126	34,588	34,270	36,274	41,095	38,423	42,762
Minority % of IMRF AUM	12.5%	13.5%	9.4%	11.3%	12.3%	12.6%	11.7%	13.3%	14.0%	18.4%	19.0%	18.0%	18.0%	19.2%	19.4%	18.4%	22.6%	23.8%

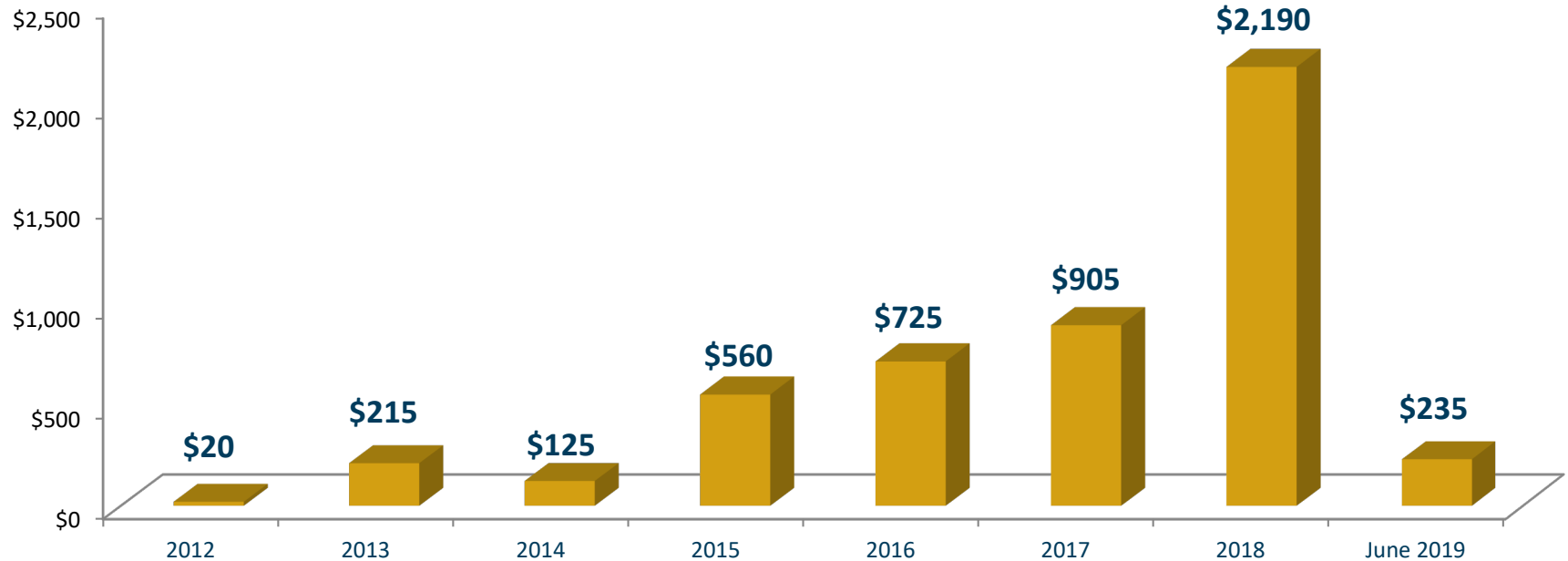
Data as of 06/30/19.

Fund of Funds/Manager of Managers values are reported at the underlying manager level. Data is unaudited.

Private Equity and Real Estate percentages are calculated using committed amounts

Allocations to MWDBE Firms

(\$4.6 Billion or 42% - 2015 to Date)

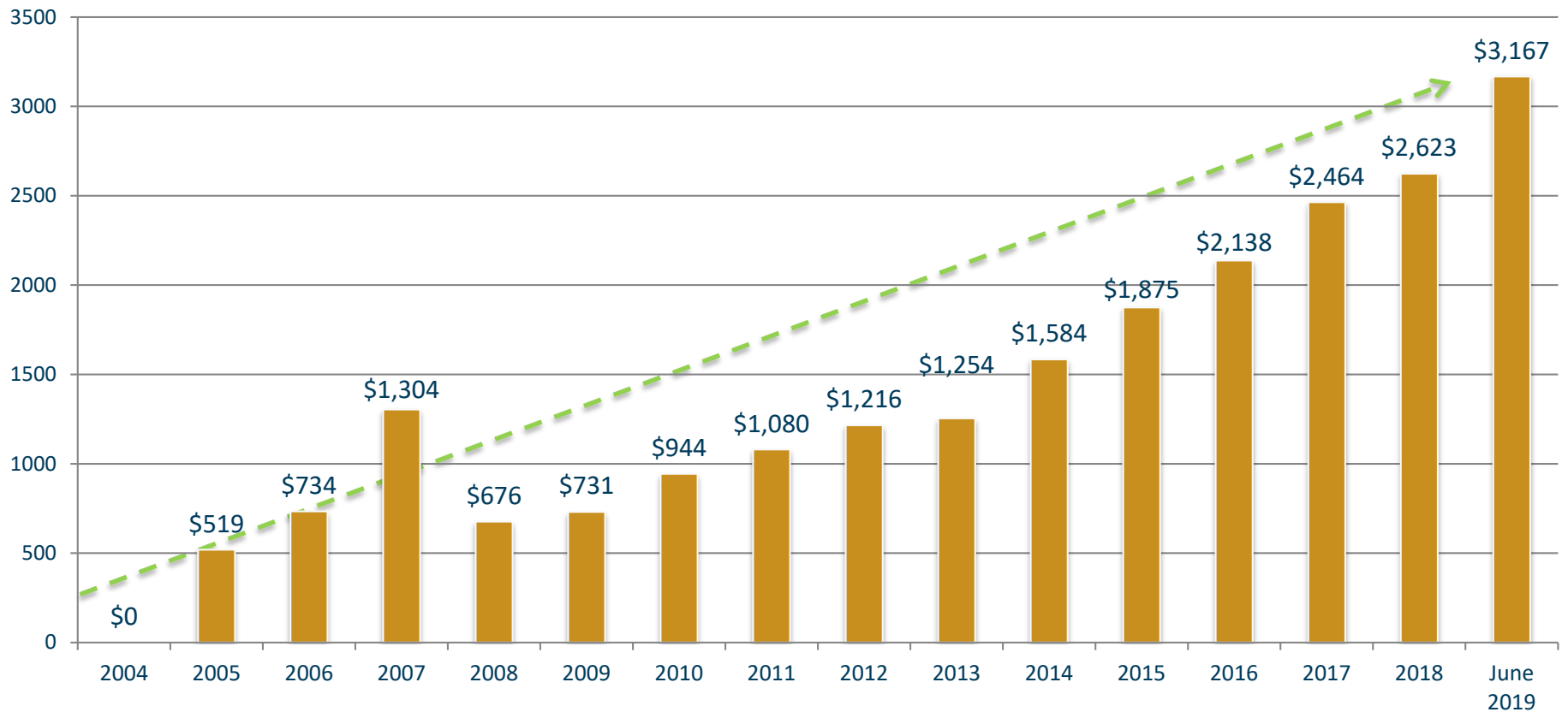


	2012	2013	2014	2015	2016	2017	2018	Jun-19
Total Annual Allocations	\$364	\$973	\$1,471	\$2,435	\$1,510	\$2,662	\$3,318	\$1,119
Minority % of Total Annual Allocations	5.5%	22.1%	8.5%	23.0%	48.0%	34.0%	66.0%	21.0%

Data as of 06/30/19. (in millions)

Latino American Investment Managers

AUM increased \$3.0 billion since 2004, \$544 million since 2018 (20.1%)

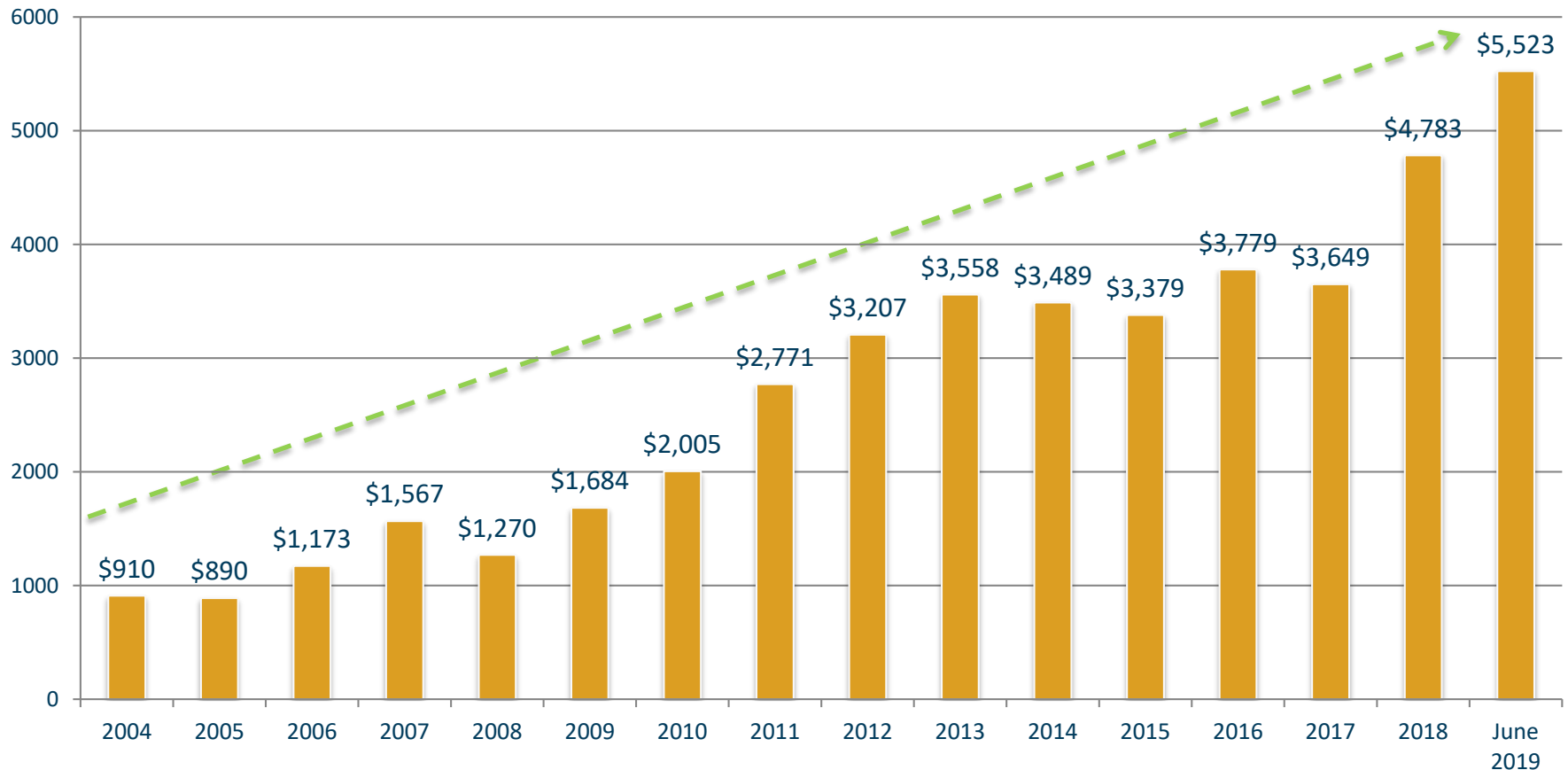


African American Investment Managers

History of African American Owned Investment Managers

December 31, 2004 through June 30, 2019

AUM increased by \$4.6 billion since 2004, \$740 million since 2018 (15.5%)

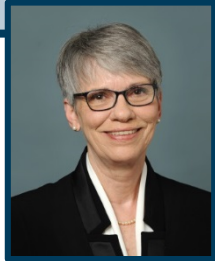


2. COMMITMENT to Diverse Future STARTS AT THE TOP

3 ELECTED BY MEMBERS



Natalie Copper
School-age Child Care
Site-coordinator
Dawes School in Evanston



Trudy Williams
Administrative Assistant
**Fulton County State's
Attorney's Office**



Alex Wallace, Jr.
Bus Driver
**Oswego Community
Unit School District 308**
IMRF Board President

1 ELECTED BY RETIRED MEMBERS



Sharon U. Thompson
Treasurer (Formerly)
Lee County
IMRF Secretary

4 ELECTED BY EMPLOYERS



Sue Stanish
Director of
Finance
**Naperville Park
District**



Tom Kuehne
Finance Director/Treasurer
**Village of Arlington
Heights**



David Miller
Deputy Executive
Director
**North Shore Water
Reclamation District**
IMRF Vice President



Gwen Henry
Treasurer
DuPage County

IMRF Staff Culture of Diversity

- Diverse Internal Investments Team of eleven professionals (5 women, 4 minority)
- Immersion in MWDBE Finance Community
 - CFA Society, Robert Toigo Foundation, PREA Foundation, SEO LPAC, ILPA Working Group on Diversity in Private Equity, NASP, NAA, etc.
- Open Door Policy
 - No referrals necessary
 - Dedicated team
 - 2018: 513 meetings, 74 MWDBE
 - 2019: 162 meetings, 29 MWDBE (YTD)

3. Commitment to Illinois

- **\$15.4 billion of IMRF's assets are managed by Illinois-based Investment Management firms as of 06/30/2019.**
- **\$1.0 billion of IMRF's assets are managed by Illinois-based Investment Management firms owned by minorities, women and persons with a disability as of 06/30/2019.**
 - **\$10.2 billion of IMRF's assets are managed by minorities, women and persons with a disability.**
- **Retirees spend their money in Illinois**
 - 85% of retired members remain in Illinois
 - In 2018, IMRF paid \$1.83 billion to Illinois retirees
 - Payments generated \$2.67 billion in economic activity*
 - Supported creation of 18,329 jobs

**IMRF benefit payments times the U.S. Bureau of Economic Analysis Total Output Multiplier*

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Latino American Investment Managers

As of June 30, 2019

IMRF's Latino American Investment Managers manage \$3.1 billion across fixed income, international equity, private equity and real estate asset classes.

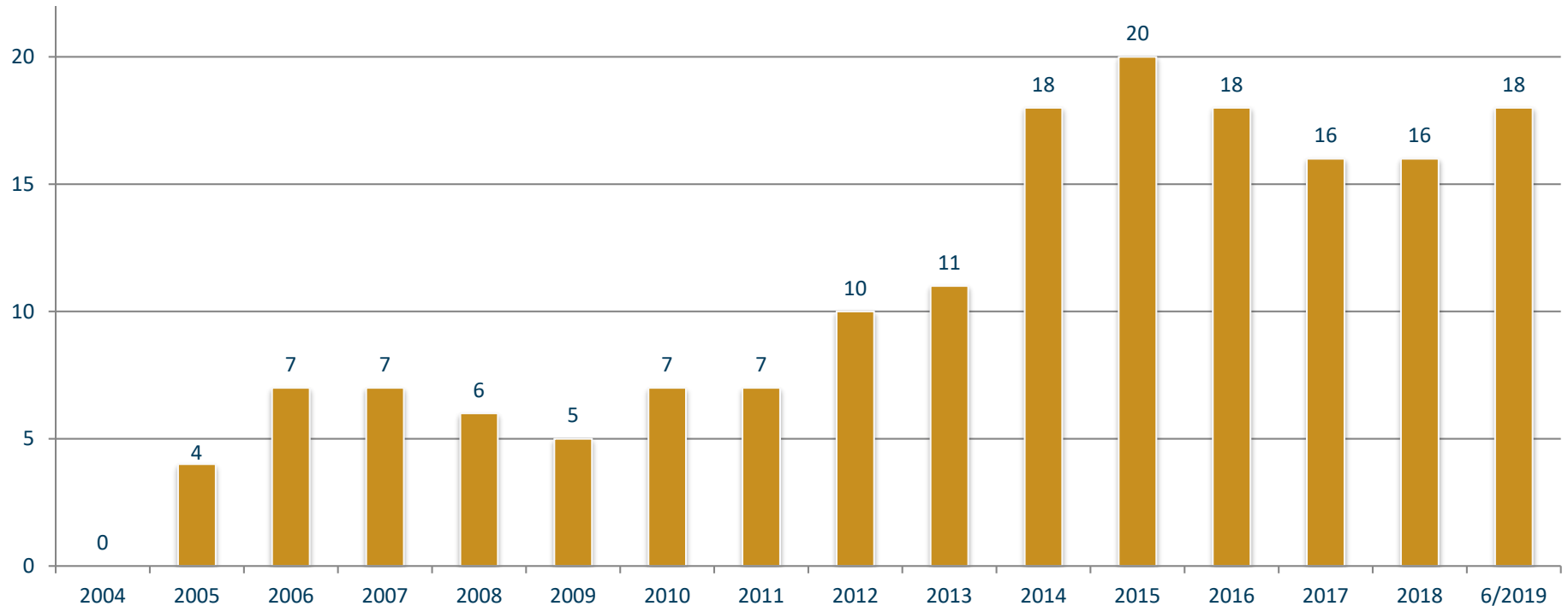
Latino	\$ AUM	Asset Class \$ AUM	% of Asset Class
Fixed Income	2,273,609,162	12,468,064,014	18.24%
International Equity	258,831,781	8,090,580,091	3.20%
Private Equity*	308,782,082	1,908,863,663	16.2%
Real Estate*	325,401,220	2,779,894,655	11.7%
Total	3,166,624,245		

**Private Equity and Real Estate are based on committed amounts. Fund of Fund values are reported at the underlying manager level. Data as of 06/30/19.*

Latino American Investment Managers

Increase in Number of Latino American Owned Investment Managers

December 31, 2004 through June 30, 2019



- 7 private equity managers with 18 mandates
- 5 real estate managers with 9 mandates
- 2 equity managers with 3 mandates
- 4 fixed income managers with 5 mandates

Latino American Investment Managers

As of June 30, 2019

Investment Managers by Classification

<u>Latino</u>	<u>Assets Under Management</u>	<u>% of Total Fund MV</u>	<u>Asset Class</u>	<u>Account Type</u>
Ativo Capital Management	60.7	0.1%	International Equity	- Progress Investment Management MOM
Ativo Capital Management	139.5	0.3%	International Equity	Direct Mandate
AUA Private Equity Fund	5.0	0.0%	Private Equity	Direct Mandate
AUA Private Equity Fund II	15.0	0.0%	Private Equity	Direct Mandate
Clearlake Capital Partners III	7.5	0.0%	Private Equity	Abbott Capital FOF
Clearlake Capital Partners V	20.0	0.0%	Private Equity	Direct Mandate
Clearlake Capital Partners V	1.7	0.0%	Private Equity	Abbott Capital FOF
Clearlake Opportunities Partners II	75.0	0.2%	Private Equity	Direct Mandate
Estancia Capital Partners	5.0	0.0%	Private Equity	Direct Mandate
Frontier Global Partners	58.6	0.1%	International Equity	Progress Investment Management MOM
Garcia Hamilton & Associates	1,041.3	2.4%	Fixed Income	Direct Mandate
Garcia Hamilton & Associates	70.3	0.2%	Fixed Income	Progress Investment Management MOM
GIA Partners	150.4	0.4%	Fixed Income	Progress Investment Management MOM
Hispania Private Equity Fund II	1.6	0.0%	Private Equity	Muller & Monroe M2 Private Equity FOF
Hudson Realty Capital V	11.7	0.0%	Real Estate	Franklin Templeton Emerging Manager Real Estate FOF
LM Capital Group	905.9	2.1%	Fixed Income	Direct Mandate
Long Wharf RE Partners IV	13.7	0.0%	Real Estate	Franklin Templeton Emerging Manager Real Estate FOF
Long Wharf RE Partners V	30.0	0.1%	Real Estate	Direct Mandate
Long Wharf RE Partners VI	35.0	0.1%	Real Estate	Direct Mandate
New Mainstream Capital II	5.0	0.0%	Private Equity	Direct Mandate
New Mainstream Capital II	4.5	0.0%	Private Equity	Abbott Capital FOF
New Mainstream Capital II	2.3	0.0%	Private Equity	Pantheon FOF
New Mainstream Capital III	25.0	0.1%	Private Equity	Direct Mandate
New Mainstream Capital III	4.3	0.0%	Private Equity	Abbott Capital FOF
New Mainstream Capital III	3.0	0.0%	Private Equity	Pantheon FOF
Oak Street Real Estate Capital III	25.0	0.1%	Real Estate	Direct Mandate
Oak Street Real Estate Capital IV	75.0	0.2%	Real Estate	Direct Mandate
Oak Street Seeding and Strategic Capital Fund II-MW	80.0	0.2%	Real Estate	Direct Mandate
Olympus Property	45.0	0.1%	Real Estate	Artemis Minority Real Estate MOM
Ramirez Asset Management	105.7	0.2%	Fixed Income	Progress Investment Management MOM
Palladium Equity Partners V	4.0	0.0%	Private Equity	Abbott Capital FOF
Pillar Real Estate Fund I	10.0	0.0%	Real Estate	Oak Street Seeding Minority FOF
Valor Equity Partners III	5.0	0.0%	Private Equity	Direct Mandate
Valor Equity Partners IV	75.0	0.2%	Private Equity	Direct Mandate
Valor M33 II	50.0	0.1%	Private Equity	Direct Mandate
Subtotal	\$3,167	7.4%		

Assets under management are in millions

African American Investment Managers

As of June 30, 2019

IMRF's African American Investment Managers manage \$5.5 billion across domestic equity, fixed income, international equity, private equity, and real estate asset classes.

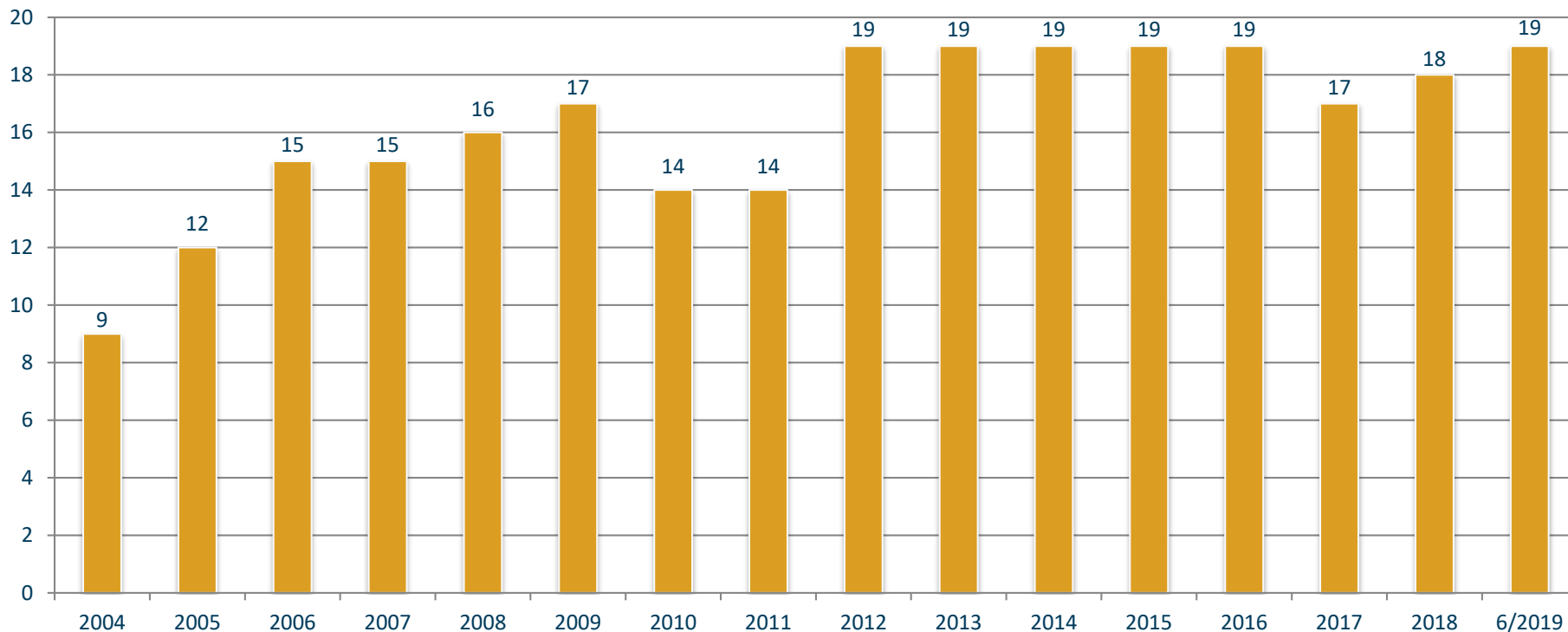
African American	\$ AUM	Asset Class \$ AUM	% of Asset Class
Domestic Equity	1,256,667,221	16,976,333,946	7.4%
Fixed Income	2,405,360,244	12,468,064,014	19.3%
International Equity	1,039,867,973	8,090,580,091	12.9%
Private Equity*	717,575,594	1,908,863,663	37.6%
Real Estate*	103,400,000	2,779,894,655	3.7%
Total	5,522,871,031		

*Private Equity and Real Estate are based on committed amounts. Fund of Fund values are reported at the underlying manager level. Data as of 06/30/19.

African American Investment Managers

Increase in Number of African American Owned Investment Managers

December 31, 2004 through June 30, 2019



- 7 private equity managers with 23 mandates
- 4 real estate managers with 5 mandates
- 2 equity managers with 3 mandates
- 3 fixed income managers with 3 mandates
- 3 with both equity and fixed income mandates

African American Investment Managers

As of June 30, 2019

<u>Investment Managers by Classification</u>	<u>Assets Under Management</u>	<u>% of Total Fund MV</u>	<u>Asset Class</u>	<u>Account Type</u>
African American				
Advent Capital	52.6	0.1%	Fixed Income	Progress Investment Management MOM
Basis Investment Group	5.0	0.0%	Real Estate	Artemis Minority Real Estate MOM
Brown Capital Management	357.1	0.8%	International Equity	Direct Mandate
Brown Capital Management	42.6	0.1%	International Equity	Progress Investment Management MOM
Channing Capital Management	228.6	0.5%	Domestic Equity	Direct Mandate
Capstone Development	15.0	0.0%	Real Estate	Artemis Minority Real Estate MOM
DBL Equity Fund- BAEF II, L.P.	1.6	0.0%	Private Equity	Muller & Monroe M2 Private Equity FOF
Earnest Partners	1,069.8	2.5%	Fixed Income	Direct Mandate
Earnest Partners	640.1	1.5%	International Equity	Direct Mandate
ICV Capital Partners III	20.0	0.0%	Private Equity	Direct Mandate
ICV Capital Partners III	4.5	0.0%	Private Equity	Abbott Capital FOF
ICV Capital Partners III	5.0	0.0%	Private Equity	Pantheon FOF
ICV Capital Partners IV	35.0	0.1%	Private Equity	Direct Mandate
ICV Capital Partners IV	4.3	0.0%	Private Equity	Abbott Capital FOF
ICV Capital Partners IV	3.0	0.0%	Private Equity	Pantheon FOF
Jair Lynch - Takoma Central	23.8	0.1%	Real Estate	Artemis Minority Real Estate MOM
Jair Lynch - Half Street	40.0	0.1%	Real Estate	Artemis Minority Real Estate MOM
JLC Infrastructure Fund I	25.0	0.1%	Private Equity	Direct Mandate
MCB Real Estate	19.6	0.0%	Real Estate	Artemis Minority Real Estate MOM
Muller & Monroe	2.6	0.0%	Private Equity	Direct Mandate
Piedmont Investment Advisors	1,056.4	2.5%	Fixed Income	Direct Mandate
Piedmont Russell 1000 G	1,028.1	2.4%	Domestic Equity	Direct Mandate
Progress Investment Management	-	-	Fixed Income	Direct Mandate
Progress Investment Management	-	-	International Equity	Direct Mandate
Pugh Capital Management	157.5	0.4%	Fixed Income	Progress Investment Management MOM
Smith Graham	69.1	0.2%	Fixed Income	Progress Investment Management MOM
Smith Whiley III	1.6	0.0%	Private Equity	Muller & Monroe M2 Private Equity FOF
Vista Credit Opportunities Fund I	50.0	0.1%	Private Equity	Direct Mandate
Vista Credit Opportunities Fund II	50.0	0.1%	Private Equity	Direct Mandate
Vista Equity Partners V	100.0	0.2%	Private Equity	Direct Mandate
Vista Equity Partners VI	100.0	0.2%	Private Equity	Direct Mandate
Vista Equity Partners VII	100.0	0.2%	Private Equity	Direct Mandate
Vista Foundation Fund II	15.0	0.0%	Private Equity	Direct Mandate
Vista Foundation Fund III	25.0	0.1%	Private Equity	Direct Mandate
Vistria Fund	15.0	0.0%	Private Equity	Direct Mandate
Vistria Fund	3.1	0.0%	Private Equity	Pantheon FOF
Vistria Fund II	75.0	0.2%	Private Equity	Direct Mandate
Vistria Fund II	3.0	0.0%	Private Equity	Pantheon FOF
Vistria Fund III	75.0	0.2%	Private Equity	Direct Mandate
Vistria Fund III	4.0	0.0%	Private Equity	Pantheon FOF
Subtotal	\$5,523	12.9%		

Assets under management are in millions

Minority Manager Allocations

Year to date through June 2019, \$235 million or 21% of all new capital allocations were directed to Minority Managers.

- Private Equity \$125 million
- Real Estate \$110

In 2018, \$2,190 million or 66% of all new capital allocations were directed to Minority Managers.

- Private Equity \$240 million
- Domestic Equity \$1 billion
- Fixed Income \$750 million
- Real Estate \$175 million
- Infrastructure \$25 million

In 2017, \$905 million or 34% of all new capital allocations were directed to Minority Managers.

- Private Equity \$155 million
- Fixed Income \$600 million
- Real Estate \$150 million

In 2016, \$725 million or 48% of all new capital allocations were directed to Minority Managers.

- Private Equity \$270 million
- Fixed Income \$275 million
- Real Estate \$130 million
- Domestic Equity \$50

Minority Manager Allocations

In 2015, \$560 million or 23% of all new capital allocations were directed to Minority Managers.

- Private Equity \$10 million
- Fixed Income \$450 million
- Real Estate \$100 million

In 2014, \$125 million or 8.5% of all new capital allocations were directed to Minority Managers.

- Private Equity \$125 million

In 2013, \$215 million or 22.1% of all new capital allocations were directed to Minority Managers.

- Private Equity \$65 million
- Domestic Equity \$150 million

In 2012, \$20 million or 5.5% of all new capital allocations were directed to Minority Managers.

- Private Equity \$20 million

Minority Investment Manager Policy

The Illinois Municipal Retirement Fund is committed to providing opportunities for minority and women owned investment management firms and investment management firms owned by a person with a disability. IMRF has adopted the aspirational goal that 20% of the total Fund assets be managed by firms owned by minorities, women and persons with a disability.

Investment Manager Classification	Minimum Goal as a % of the Total IMRF Portfolio	Actual % of Total Fund Market Value As of 6/30/19	Assets Under Management as of 06/30/19
Minority Owned Businesses *	13%	20.6%	\$8,831
Women Owned Businesses	6%	3.1%	1,327
Businesses Owned by a Person with a Disability	1%	0.03%	15
Total Minority, Women and Disabled Owned Investment Management Firms	20%	23.8%	\$10,172

* Includes African American, Latino American, Asian American owned businesses

Minority Investment Managers

As of June 30, 2019

IMRF's Minority Investment Managers invest \$10.2 billion in strategies across domestic equity, fixed income, international equity, private equity and real estate asset classes.

Asset Class	Minority \$ AUM	Asset Class \$ AUM	Minimum Goal as a % of Each Asset Class	Minority % of Asset Class	Minority % of Total Fund Market Value	Minority % of Active Strategies
Domestic Equity	\$1.257 billion	\$16.976 billion	5%	7.4%	2.9%	4.2%
Fixed Income	5.024 billion	12.468 billion	25%	40.3%	11.7%	16.9%
International Equity	2.052 billion	8.091 billion	15%	25.4%	4.8%	6.9%
Private Equity*	1.111 billion	1.909 billion	10%	26.5%	2.6%	3.7%
Real Estate*	0.727 billion	2.780 billion	4%	16.0%	1.7%	2.4%
Total	\$ 10.172 billion				23.8%	34.2%

**Private Equity and Real Estate are based on committed amounts. Fund of Fund values are reported at the underlying manager level. Data as of 06/30/19. Total Fund Market Value equals \$42,762,306,910. Total Active Strategies equal \$29,784,302,915.*

Minority and Emerging Assets Under Management (in millions)

Investment Manager Classification	Minority Managers	Emerging Managers ¹
Minority Owned Businesses	\$8,830	\$3,084
Women Owned Businesses	1,327	1,162
Businesses Owned by a Person with a Disability	15	15
Total Assets Under Management (As of June 2019)	\$10,172	\$4,261

¹ IMRF has 6 Minority managers that are not considered Emerging managers, Brown Capital, Earnest Partners, Garcia Hamilton, Longfellow, Piedmont and Vista. These firms have assets under management greater than \$10 billion dollars. In aggregate, they manage \$5.9 billion for IMRF.

Total Fund Market Value equals \$42,762,306,910. Total Active Strategies equal \$29,784,302,915.
Data as of 06/30/19. Numbers may not add up due to rounding.

Graduation

- The Emerging Manager Program is made up of all Emerging/Minority Managers hired directly by IMRF or by IMRF's Manager of Managers/Fund of Funds platforms.
- All Emerging/Minority investment managers investing assets on IMRF's behalf are considered part of the IMRF portfolio.
- IMRF does not have a separate asset allocation amount for its Emerging Manager Program because IMRF does not restrict the manager to a pre-specified program allocation.
- IMRF believes that all of its minority managers should be eligible for additional allocations during all rebalancing and strategic asset allocation decisions.
- As of June 30, 2019, Emerging/Diverse managers invest \$10.172 billion or 23.8% of IMRF's total portfolio.
 - \$8.5 billion or 83.6% are direct relationships
 - \$1.6 billion or 16.4% are Manager of Managers/Fund of Funds platforms.

Minority Brokerage Policy- Fixed Income

The Illinois Municipal Retirement Fund is committed to providing opportunities for minority owned and women owned broker/dealers and broker/dealers owned by a person with a disability. The below information is year to date through June 30, 2019.

Asset Class	YTD Par Volume Traded	YTD Minority Par Volume Traded	Minimum Goal	Actual Minority Par Volume Percentage
Fixed Income	6,214,353,228	2,351,614,892	22.00%	37.84%
High Yield Bonds	192,178,791	14,705,000	5.00%	7.65%
Emerging Market Debt	592,622,889	0	Best Efforts	0.00%
Fixed Income Commingled Accounts	23,507,080,100	21,483,497	Best Efforts	0.09%
Total Fixed Income	30,506,235,007	2,387,803,389		7.83%

Classification	YTD Minority Fixed Income Par Volume Traded	% of Total Par Volume Traded (YTD 6/30/19)
African American	1,526,050,185	24.56%
Disabled	73,106,253	1.18%
Latino	660,086,396	10.62%
Women	92,372,058	1.49%
Total Minority	2,351,614,892	37.84%

Classification	YTD Minority High Yield Par Volume Traded	% of Total Par Volume Traded (YTD 6/30/19)
African American	4,414,000	2.30%
Disabled	3,955,000	2.06%
Latino	1,680,000	0.87%
Women	4,656,000	2.42%
Total Minority	14,705,000	7.65%

Manager of Managers/ Fund of Funds as of 12/31/18

- IMRF utilizes Progress Investment Management for International Equity and Fixed Income mandates dedicated to hiring underlying MWDBE firms as defined by Illinois Pension Code.
- The fee split between Progress Investment Management and the underlying managers for the Fixed Income Manager of Managers mandate is 38.90% or \$1.125 million to Progress Investment and 61.10% or \$1.768 million to the underlying managers, respectively.
- For the International Equity mandate, the fee split between Progress Investment Management and the underlying managers is 24.10% or \$0.369 million to Progress Investment and 75.90% or \$1.162 million to the underlying managers, respectively.
- In addition to Progress, IMRF utilizes Franklin Templeton and Artemis Real Estate Partners as Real Estate Manager of Managers/Fund of Funds platforms dedicated to hiring underlying minority, women and disabled owned firms as defined by Illinois Pension Code.

Request for Proposals

During 2018, IMRF allocated \$1.025 billion to MWBE investment managers across three RFPs.

<u>Issue Date</u>	<u>End Date</u>	<u>Search Name</u>	<u>Total Allocation</u>	<u>MWBE Manager Allocation</u>	<u>% MWBE</u>	<u>Staff led Search or Callan engaged</u>
10/16/2017	2/23/2018	MWBE Passive Equity Index Fund	\$1,000	\$1,000	100.00%	Staff led
2/2/2018	5/18/2018	Global Customized Private Equity Separate Account**	\$300	\$0	0.00%	Callan engaged
9/12/2018	12/13/2018	Closed-End Unlisted Infrastructure Equity	\$25	\$25	100.00%	Staff led
		Total (in millions)	\$1,325	\$1,025	77.36%	

***Managers have discretion to invest in minority owned firms as part of the mandate.*

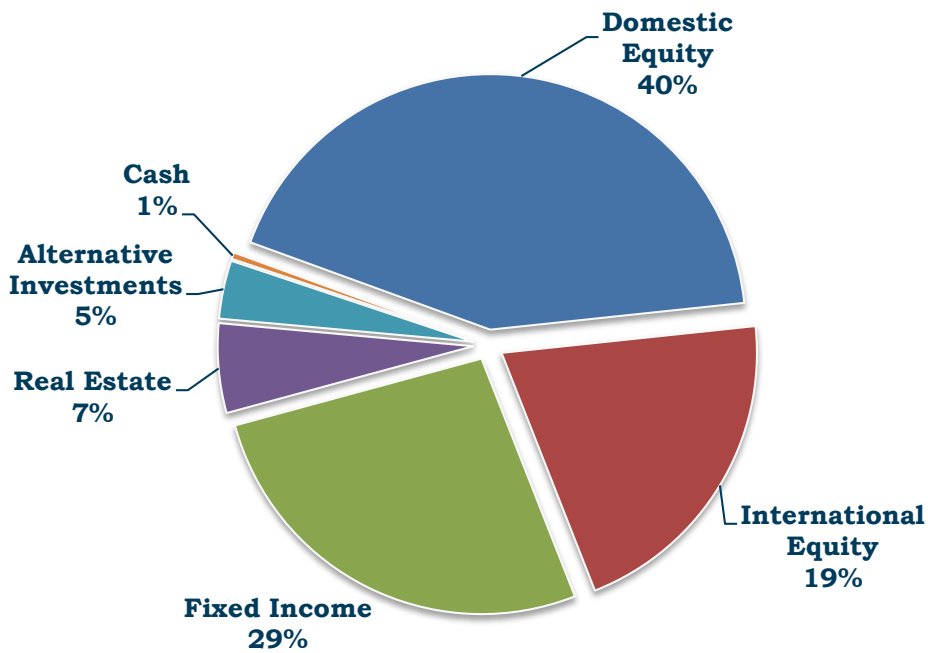
Request for Proposals

- RFPs are prepared by IMRF Investment Staff and sent to Callan for review and feedback
- IMRF does not engage Callan for all searches
 - During 2018, Staff led two out of three searches
- IMRF does not require a specific length of performance track record or specific amount of assets under management (minimum/maximum amount in strategy or firm)

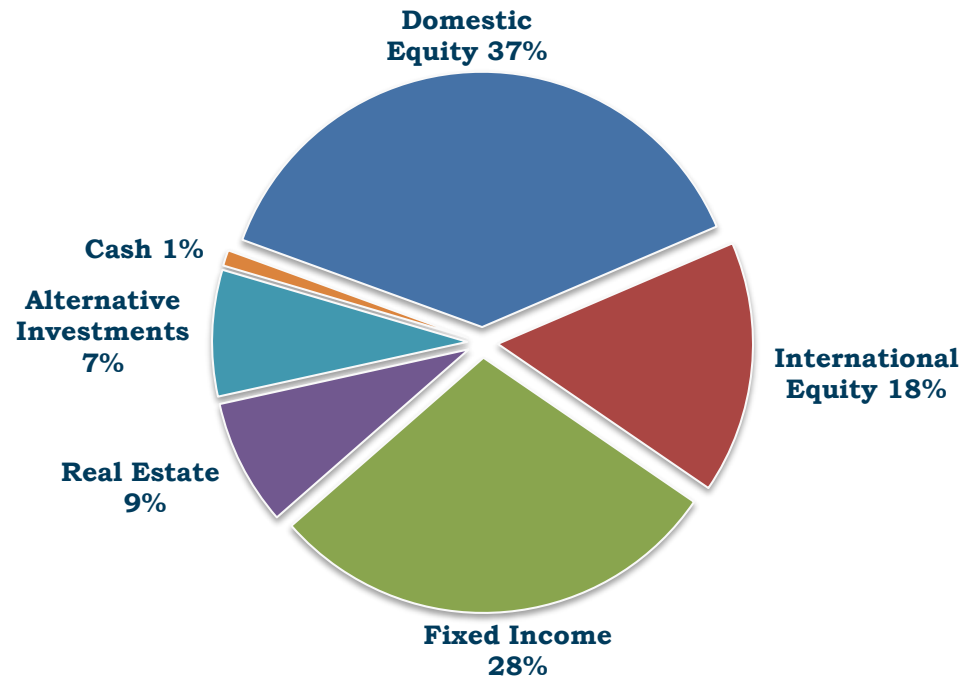
How is the money invested?

As of June 30, 2019, IMRF's total market value was \$42.7 billion

Actual Asset Allocation



Target Asset Allocation



How is the money invested?

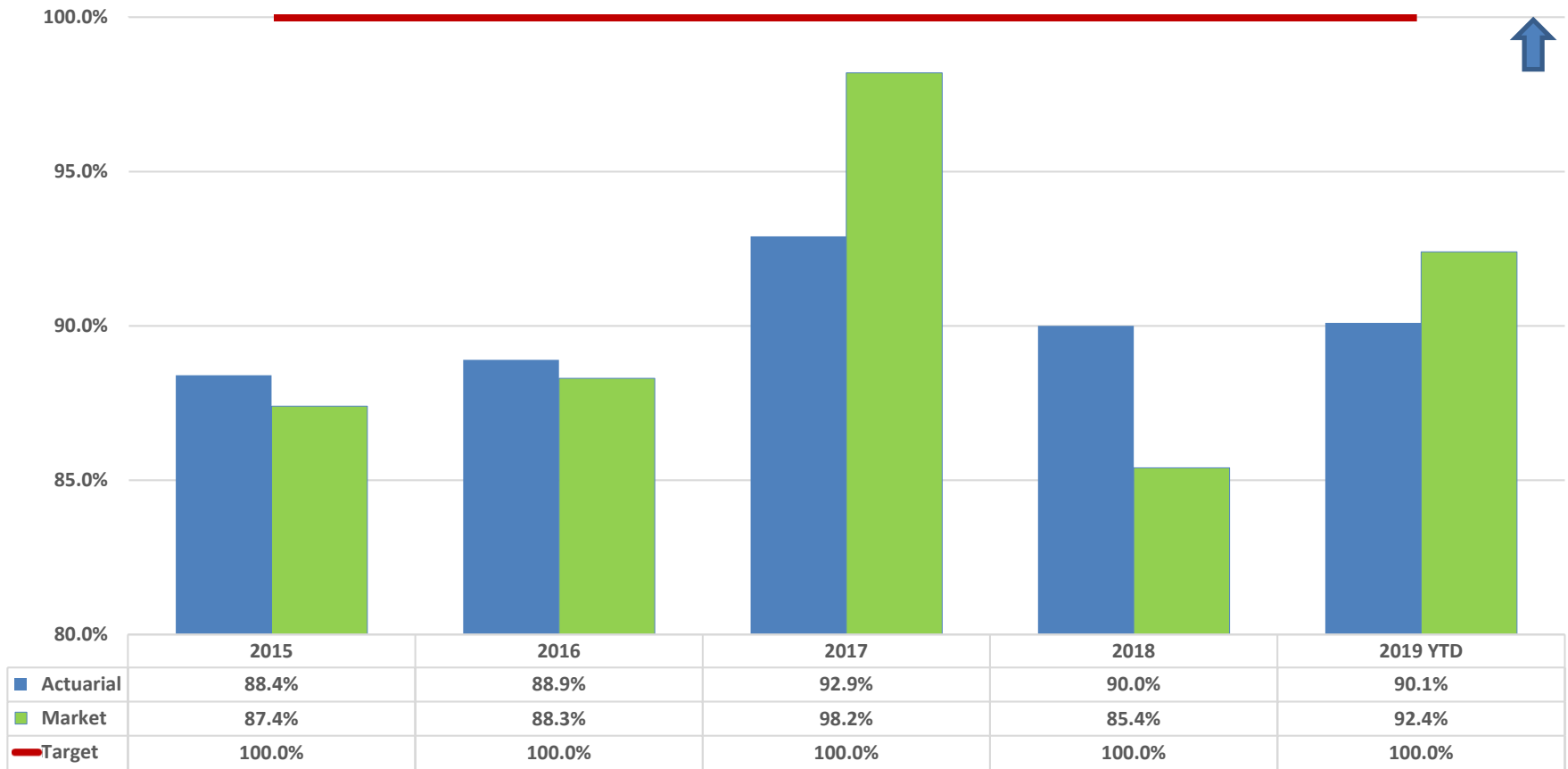
As of June 30, 2019, IMRF's total market value was \$42.7 billion

Asset Class	\$ Millions Actual	Percent Actual	Percent Target	Percent Difference	\$Millions Difference
Domestic Equity	\$16,976	39.7%	37.00%	2.7%	1,154
International Equity	8,091	18.9%	18.00%	0.9%	393
Fixed Income	12,468	29.2%	28.00%	1.2%	495
Real Estate ¹	2,780	6.5%	9.00%	(2.5%)	(1,069)
Alternative Investments ²	2,179	5.1%	7.00%	(1.9%)	(814)
Cash	268	0.6%	1.00%	(0.4%)	(159)
Total	\$42,762	100.0%	100.0%		

¹ Including \$1,623 million in unfunded commitments, Real Estate represents 10.49% as of 06/30/2019.

² Including \$2,182 million in unfunded commitments, Alternatives represents 9.93% as of 06/30/2019.

Progress Towards 100% Funding



	2011	2012	2013	2014	2015	2016	2017	2018
Contributions	\$1,128	\$1,214	\$1,270	\$1,275	\$1,269	\$1,314	\$1,297	\$1,379
Benefit and Admin. Expenditures	\$1,350	\$1,448	\$1,566	\$1,693	\$1,824	\$1,977	\$2,117	\$2,298
Net Cash Outflow	-\$222	-\$234	-\$296	-\$418	-\$555	-\$663	-\$820	-\$919

in millions

Illinois-based Investment Managers

As of June 30, 2019

IMRF's Illinois-based Investment Managers invest \$15.4 billion across domestic equity, international equity, fixed income, private equity and real estate asset classes.

Asset Class	IL \$ AUM	Asset Class \$ AUM	IL % of Asset Class
Domestic Equity	\$9,697,694,447	16,976,333,946	57.12%
Fixed Income	1,765,910,760	12,468,064,014	14.16%
International Equity	3,119,343,791	8,090,580,091	38.56%
Private Equity*	583,706,751	1,908,863,663	30.58%
Real Estate*	321,903,998	2,779,894,655	11.58%
Total	\$15,488,559,747		

**Private Equity and Real Estate are based on committed amounts. Fund of Fund values are reported at the underlying manager level. Data as of 06/30/19.*

Illinois-based Minority Investment Managers

As of June 30, 2019

IMRF's Illinois-based Minority Investment Managers invest \$1.0 billion across domestic equity, international equity, private equity and real estate asset classes.

Classification	African American	Disabled	Latino	Total \$ AUM
Domestic Equity	228,606,022	0	0	228,606,022
International Equity	0	0	200,190,378	200,190,378
Private Equity*	273,672,090	0	131,563,314	405,235,404
Real Estate*	0	14,849,944	180,000,000	194,849,944
Total	502,278,112	14,849,944	511,753,692	1,028,881,748

*Private Equity and Real Estate are based on committed amounts. Fund of Fund values are reported at the underlying manager level. Data as of 06/30/19.