

NEW YORK CITY COMPTROLLER

MWBE and Emerging Manager Pension Investments

Fiscal Year 2023

BUREAU OF ASSET MANAGEMENT

NOVEMBER 2023



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A Message from New York City Comptroller Brad Lander

Dear Reader,

The value of diversity in growing a thriving and inclusive economy is well-documented – and that is certainly true in the investment industry. Including a broad range of expertise and perspectives strengthens performance and helps to drive competitive returns for investment portfolios. Despite the evidence, however, for many years MWBE and smaller asset managers have been largely excluded from participation in investment management. That must change.

As Comptroller for the City of New York, I have the honor of serving as a fiduciary to the New York City retirement systems and



working with our five distinct boards in the best interests of nearly 800,000 current and retired public sector employees. We are the fourth largest pension system in the country, valued at \$253.19 billion as of the end of Fiscal Year 2023. We are proud of the risk-adjusted investment returns that we continue to secure for our pension plan participants. Our office also co-manages New York City's municipal finance program, in order to arrange for timely, cost-effective financing of the City's infrastructure and capital projects.

For the second year, my office is providing an accounting of the critical work we are doing to deepen our partnership with emerging and MWBE asset management and financial services firms. We are pleased to present you with an important update on our work.

Our investments with MWBE and emerging managers have grown over the past year, delivering strong returns for the Systems. Participation of MWBE managers in our US based actively managed asset grew from \$16.82 billion (11.65%) at the end of Fiscal Year 2022 to \$19.5 billion (12.68%) at the end of Fiscal Year 2023. This increase was part of a strong 8% growth in investment returns for the fiscal year, surpassing the Systems' 7% actuarial target rate. During FY 2023, our office also contracted with MWBE firms for 31.02% of our bond underwriting, 40.09% of our financial and swap advising, and 22.1% of our bond counsel.

We are also pleased to announce a strategic expansion of "emerging manager" and "emergingto-direct" investment programs. The Comptroller's Office's Bureau of Asset Management (BAM) has worked in partnership with our pension board trustees to analyze the allocations to and performance of diverse and emerging managers within the Systems' portfolios. In this assessment we've found strong performance amongst these managers and have developed a plan to expand our emerging manager footprint and continue to invest in high performing diverse managers. We anticipate that with the Strategic Expansion, 20% of the pension funds' US-based, actively managed assets will be invested with high quality minority and women owned investment firms by 2029. As we continue in this important work, we hold our fiduciary duty to the pensioners first and foremost, and we will continue to identify emerging and diverse managers that we believe offer strong risk adjusted returns for our systems.

The Systems have long advocated for diversity in all forms (perspectives, skills, expertise, size and background) as a sound governance principle, particularly through our board diversity initiatives such as the Boardroom Accountability Project and board matrix shareholder proposals. This work reflects our continued commitment to incorporating diversity as a key performance metric.

Brad Lander New York City Comptroller

A Message from Chief Investment Officer Steven Meier

Dear Reader,

The New York City retirement systems regard manager diversity as a fundamental component of our work as fiduciaries responsible for enhancing the long-term value of the City's five separate and distinct pension systems, which serve nearly 800,000 plan participants. Increased diversity has proven to correlate with improved investment outcomes and is a key driver of performance. We often cite portfolio



diversification as an important strategy for achieving portfolio objectives, and diversity supports diversification.

As large institutional investors, we benefit from a diverse portfolio of asset managers and strategies, and we're well-positioned to expand our diverse and emerging manager mandates across asset classes. Rigorous analysis conducted over the past year in partnership with our five boards clearly indicates that diverse-owned firms have led to important gains within our portfolio. Unlocking access to capital for these managers is a critical tool for ensuring that overlooked, high performing firms are provided an opportunity to manage public funds.

Supporting diversity, equity, and inclusion among our investment managers not only benefits the performance of our investment portfolio but also contributes to much needed progress in the financial services industry. The troubling gap in diverse representation within the industry has not been adequately addressed, and is further exacerbated by the misconception that valuing diversity jeopardizes returns. Diversity supports prudent investment decision-making, bringing fresh ideas and approaches to portfolios. Influential organizations that are intentionally considering diversity in their mix of managers sets an important tone from the top.

As of June 30, 2023, the New York City retirement systems collectively had \$19.50 billion invested with and committed to diverse managers, which represents 12.68% our of U.S.-based actively managed assets. The amount invested and committed to emerging managers, many of whom are diverse-owned, was \$9.85 billion. Diverse and emerging managers are represented across all of our asset classes, and over the past year nearly every asset class has seen increasing investments and commitments.

I'm excited to continue securing strong risk-adjusted returns for our pensioners while bolstering relationships with diverse-owned and emerging asset managers that demonstrate the ability to generate superior performance.

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Steven Meier Deputy Comptroller for Asset Management and Chief Investment Officer

A Message from Taffi Ayodele, Director of Diversity, Equity, Inclusion and Emerging Manager Strategy

Dear Reader,

Over the past year, our unwavering commitment to increasing exposure to Minority and Women-Owned Business Enterprises (MWBE) and emerging managers has resulted in significant progress. As a leading institutional investor, the New York City retirement systems understand the influential role we play in setting industry benchmarks. Under my leadership, we have proactively expanded our Emerging Manager Program and Diversity, Equity, and Inclusion initiatives, aimed at diversifying both our investment managers and internal staff.



This report signifies the culmination of extensive teamwork and introduces, for the first time, a comprehensive analysis of our asset managers by race, gender, and size. It highlights the stellar historical performance of diverse and emerging managers, generating excess returns net of fees compared to their benchmarks. Our commitment to diversity is integral to our investment process, from due diligence to continuous engagement and monitoring. We feel strongly that the positive growth of the diverse and emerging manager program, totaling over \$1.5 billion in investments and commitments, is a testament to the collaborative efforts between our investment staff, Emerging Manager Program partners, and the Systems' investment consultants.

However, we acknowledge that more work lies ahead. With women-owned asset management firms representing less than 4% of US-based actively managed assets, there is a pressing need for continued efforts to address this disparity. To tackle this, we are committed to expanding our outreach, increasing allocations to existing Emerging Manager Program mandates and recommending the addition of Direct Emerging Programs across all asset classes. By casting a wide net and fostering inclusivity, we aspire to increase our systems' MWBE allocations to 20% by 2029. Our commitment to measuring and monitoring progress underscores our dedication to promoting diversity and equality within the investment landscape, reinforcing our ongoing commitment to creating a more inclusive and representative financial industry.

Looking ahead, we remain steadfast in fostering strong partnerships that contribute to the continued success of our programs, ultimately delivering exceptional returns for our pensioners.

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Taffi Ayodele Director of Diversity, Equity, Inclusion and Emerging Manager Strategy

A Message from Deputy Comptroller for Public Finance F. Jay Olson

Dear Reader,

The Comptroller's Public Finance Bureau, working closely with the Mayor's Office of Management and Budget, oversees the City's debt program and issuance of municipal bonds for capital projects. Debt issuance funds parks, schools, bridges, sidewalks, and the rest of the City's infrastructure throughout the five boroughs. These capital projects benefit all New Yorkers, and MWBEs are an integral part of the debt issuance process, serving as underwriters, advisors, and counsel.

Through its extensive debt issuance program, the City provides growth opportunities for MWBE firms, including the Public Finance



Bureau's decades-old policies to partner with MWBE firms in the various roles in the capital financing process to help foster their growth. Over the years, the Comptroller's Office has developed and expanded financing policies and practices to help ensure that MWBE underwriters can grow their capital and staff and compete with bulge bracket firms. These policies have fostered continued reinvestment and growth that has allowed MWBE firms to expand their footprint not only in New York City, but nationally as well.

MWBEs provide their expertise in underwriting, financial advisor, and counsel teams to all of New York City's major bond issuers, and the City continually looks for ways to expand MWBE contribution to the debt issuance program. Providing opportunities for MWBE firms to grow their size and capabilities is essential to the long-term health of the City and further demonstrates that New York City's greatest strength lies in its diversity.

Beyond reflecting the City's population and its values of equity and inclusion, MWBEs provide valuable ideas to improve the City's financial position and debt financing. From additional distribution channels to reach more investors, to innovative financing ideas and alternative credit structures that improve borrowing efficiency, MWBEs are a critical part of the City's debt program.

Responsible debt management ensures New York City's strength and vibrancy for future generations. By continuing its longstanding partnership with MWBE firms, the Comptroller's Office works to ensure that future is shaped by all New Yorkers.

F. Jay Olsen

F. Jay Olson Deputy Comptroller for Public Finance

Overview of the New York City Retirement Systems and the Bureau of Asset Management (BAM)

The New York City retirement systems, referred to hereafter as "the Systems," are the City of New York's five public pension funds serving nearly 800,000 members and beneficiaries.

As of June 30, 2023, the Systems in aggregate have approximately \$253 billion in assets under management, constituting the fourth largest public pension plan in the U.S. The five pension funds comprising the Systems are the Teachers' Retirement System of the City of New York (TRS), the New York City Employees' Retirement System (NYCERS), the New York City Police Pension Fund (POLICE), the New York City Fire Pension Fund (FIRE), and the New York City Board of Education Retirement System (BERS).

The New York City Comptroller is by law the custodian of City-held trust funds and the assets of the New York City retirement systems and serves as Trustee on each of the funds. The Comptroller is also delegated to serve as investment advisor by all five pension boards. In this role, the Comptroller provides investment advice, implements Board decisions, and reports on investment performance.

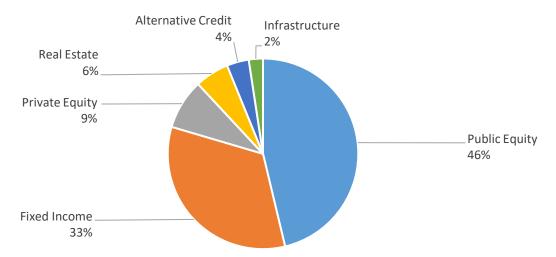
The Comptroller's Bureau of Asset Management oversees the investment portfolio for each system and related defined contribution funds and works closely with the Board of Trustees of each pension fund and their consultants on matters of asset management and allocation for each System. The Systems' portfolios are managed predominantly by external investment managers, and are largely invested in publicly traded securities, with additional allocations to private equity, real estate, infrastructure, hedge funds, and alternative credit (opportunistic fixed income) investments.



Pension Fund Value

AUM in Billions (as of 6/30/2023)

Net Asset Value by Asset Class



	TRS	NYCERS	POLICE	FIRE	BERS	Total
Public Equity*	44.34 B	36.16 B	21.34 B	8.13 B	3.89 B	113.86 B
Fixed Income*	31.91 B	24.49 B	13.76 B	5.62 B	2.27 B	78.05 B
Private Equity**	8.15 B	8.43 B	5.10 B	1.75 B	1.01 B	24.44 B
Real Estate**	5.54 B	5.87 B	3.44 B	1.18 B	747.10 M	16.78 B
Alternative Credit**	3.60 B	3.55 B	2.19 B	741.36 M	274.21 M	10.35 B
Infrastructure**	2.30 B	1.97 B	1.13 B	375.01 M	307.46 M	6.08 B
Hedge Funds**		813.20 K	2.69 B	954.21 M		3.65 B
Total	95.84 B	80.46 B	49.65 B	18.75 B	8.50 B	253.19 B

*As of June 30, 2023

**As of March 31, 2023

Overview of Diversity, Equity and Inclusion in Asset Management

MWBE and Emerging Managers

The Bureau of Asset Management and the New York City retirement systems have a longstanding commitment to prudently increasing their capital allocation to MWBE (minority- and/or womenowned) Managers and Emerging Managers.

The Systems have \$19.50 billion in investments with or committed to MWBE managers as of June 30, 2023. Those investments amount to 12.68% of U.S.-based actively managed assets.

BAM and the Systems also have a program of investing in Emerging Managers to seek the best performing managers, including MWBE managers, that do not typically have access to large institutional investors.

The Systems have a total of \$9.85 billion in investments with or committed to Emerging Manager firms as of June 30, 2023. Those investments amount to 3.89% of the Systems' total assets under management, up from 3.59% in 2022.

MW/DVBE Broker Dealer Program

In 2008, BAM, on behalf of the Systems, established the Minority- and Women-Owned Business Enterprise (MWBE) Brokerage Program, which was expanded to include Disabled Veteran-Owned businesses in 2019 and is now the MW/DVBE Brokerage Program. The program is designed to support opportunity for brokerage firms owned and operated by minorities, women and disabled veterans to conduct the purchase, sale or exchange of traded securities, consistent with best execution, for external investment managers in Public Equity and Public Fixed Income investing on behalf of the Systems.

Since the inception of the program BAM has maintained a MW/DVBE Brokerage Firm List ("Brokerage List") on behalf of the Systems, which was designed to assist the Systems' investment managers with identifying MW/DVBE brokerage firms with relevant experience, organizational stability, regulatory controls, trading capacity and certifications for potential utilization. Investment managers are encouraged to include firms from the Brokerage List in executing trades on behalf of the Systems and to make good faith efforts to achieve certain utilization goals recommended by BAM and approved by Trustees. These goals range from 5% to 30% depending on the sub-asset class and cover U.S. Equity, Non-U.S. Equity, Government & Agencies (Fixed Income), Mortgages (Fixed Income), U.S. Corporate Bonds and High Yield Fixed Income. In choosing to allocate to a manager, the Systems delegate to their investment managers full discretion to select all the brokerage firms that execute trades on their behalf. The Systems and Comptroller require all purchases and sales of securities for the Systems to be made on the basis of best execution.

BAM identifies firms for the Brokerage List by periodically soliciting expressions of interest and evaluating firms. The Brokerage List has 14 firms as of January 2023 and is intended for reference only, not as an exclusive, approved or recommended list of brokers, and does not guarantee trading activity. However, all public equity and public fixed income managers are monitored and engaged throughout the year and encourage to increase their utilization of MW/DVBE brokers.

Diversity, Equity, and Inclusion in Manager Due Diligence

Since 2015, BAM, on behalf of the Systems, has conducted due diligence and annual monitoring of the diversity, equity and inclusion (DEI) characteristics of all investment managers across asset classes as part of the investment due diligence process. The integration of DEI in the investment process is based on extensive and growing research showing that diversity improves decision-making, prevents the limitations of groupthink and is correlated with stronger financial performance and risk management. The lack of diversity in the asset management industry and the racial and gender wealth gap also presents a systemic risk to the returns we seek to generate for our beneficiaries. As of the 2021 DCAS report, 83% of New York City's workforce were considered "diverse," meaning the employee was a woman or person of color while only 2% of all asset managers in the industry were considered "diverse-owned." Through BAM's prudent manager due diligence and monitoring efforts, we seek to mitigate the systemic risk presented by this market asymmetry and associated blindspots.

Some characteristics that BAM diligences are the quality of the managers' DEI-related policies, practices, and processes within the firm such as the recruitment process, employee resource groups, and DEI-linked compensation mechanisms. In addition, BAM looks at the diversity of the managers' investment professionals include

ing retention and promotions and the managers' progress over time. BAM includes a summary of these topics in the investment memoranda to the BAM Investment Committee and the Systems' Boards of Trustees.

In addition to assessing the organizational DEI policies, practices, and processes of managers, BAM systematically evaluates how managers integrate consideration of financially material DEI issues in the managers' investment process, including pre-investment diligence, portfolio management, engagement and value creation. For private markets managers, BAM asks for the diversity of portfolio companies using the Institutional Limited Partners Association (ILPA) Diversity Metrics Template. Where applicable, BAM diligences supplier diversity policies and DEIlinked portfolio company practices such as the diversity of portfolio company board members for control holdings. Where BAM identifies material risks, BAM seeks to engage managers as appropriate to encourage best practices on DEI.

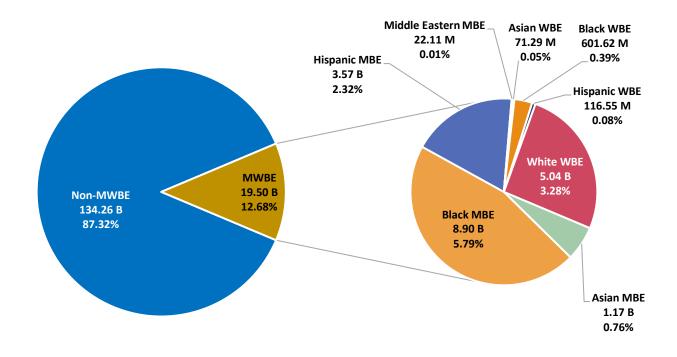
Each year, BAM monitors managers' DEI policies and practices. As of 2023, BAM has directreported DEI information across 17 metrics from 192 managers which make up 95% of the Systems' AUM. The managers for about 94% of AUM track diversity metrics at their firm and about 50% track diversity metrics for their portfolio holdings.

In addition, the majority of the Systems' managers have goals or aspirational aims to increase diversity in their own firm and through their business activities. The managers for 65% of total AUM have specific targets to increase recruitment, hiring, promotion, and retention of diverse and underrepresented groups. 68% of total AUM has a supplier diversity program and 57% of total AUM has a formal commitment to increase diversity at the board level. The majority of the Systems' managers by AUM reinforce their DEI policies by including DEI objectives in their compensation mechanisms and by adopting an equitable pay policy. In the future, BAM plans to use the analytics platform Lenox Park Solutions to conduct deeper analysis of DEI among the Systems' investment managers, including benchmarking managers and assessing DEI progress over time.

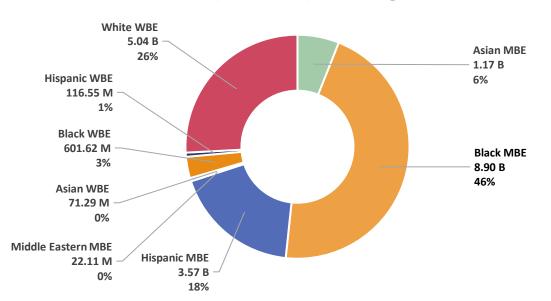
MWBE Managers and Asset Values

Values denote invested and committed assets with US-based MWBEs as of June 30, 2023 as a percentage of US-based actively managed assets.

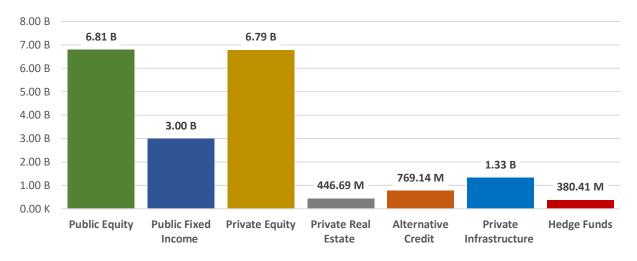
US Actively Managed Assets by Demographic



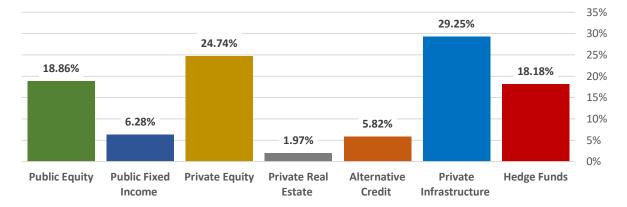
Asset management firms described as MBE are substantially owned by non-white males. Firms described as WBE are substantially owned by women.



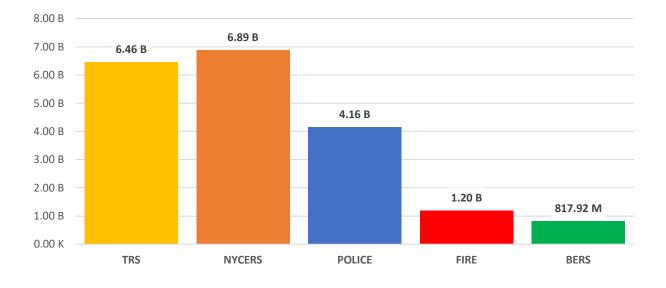
MWBE Exposure by Demographic

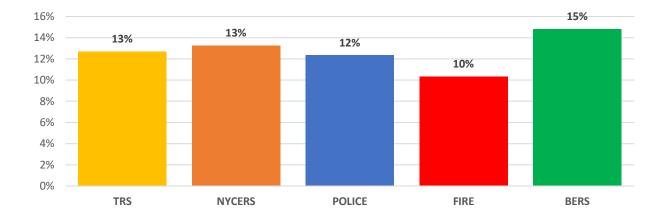


MWBE Exposure by Asset Class

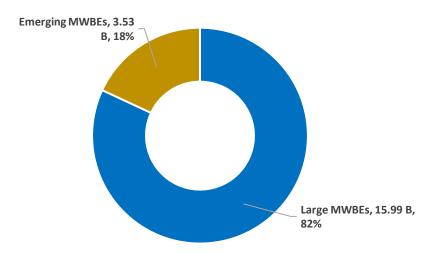


MWBE Exposure by System



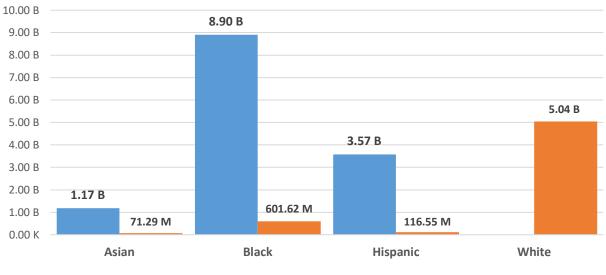


MWBE Exposure by Manager Size

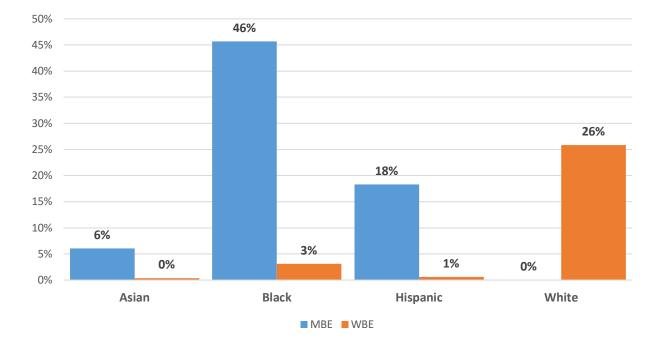


MWBE Exposure by Demographic

The asset management industry lags financial services in the representation of women. This is evident in the underrepresentation of women-owned asset managers in the Systems' portfolio.

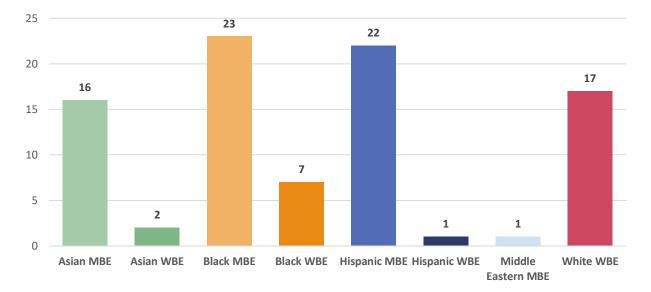




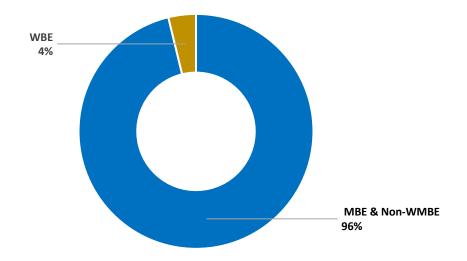


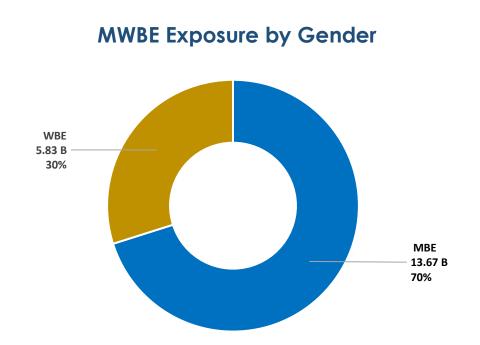
Firms with Substantial MWBE Ownership

Substantial Ownership in the 89 MWBE fund managers (including sub-managers*) in the Systems' portfolio can be broken down as follows:

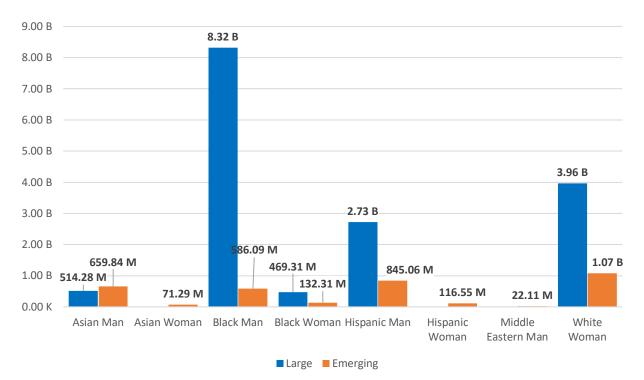


US Actively Managed Assets by Gender



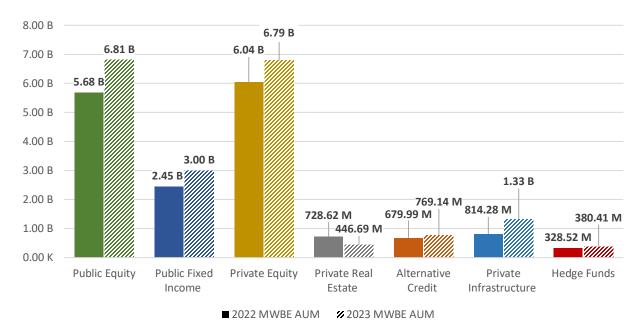


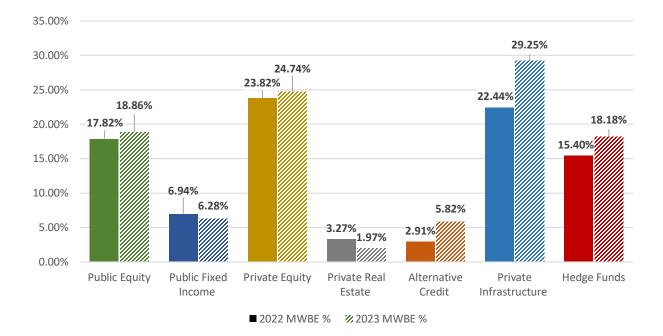
MWBE Exposure by Demographic and Emerging Manager Status



MWBE Exposure by Asset Class Change (2022-2023)

MWBE exposure has grown in nearly every asset class, partially due to increased allocations in Fixed Income, Private Equity and Infrastructure.





Key Definitions for MWBE Investments

The existing expectations for what qualifies as a minority and/or women-owned manager differ across asset classes throughout our program, and proposed changes to the definition.

Current Definitions

- Minority- and Women-Owned Investment Managers (MWBEs) also referred to as Diverse Managers
- Private market firms that are 25%+ owned and controlled by women or members of minority groups (Asian, Black, Hispanic, Middle Eastern and Native American) who also have demonstrable investment decision-making and/or executive leadership authority
- Public market firms that are 51%+ owned and operated by women and/or any members of minority groups (Asian, Black, Hispanic, Middle Eastern and Native American) who also have demonstrable investment decision-making and/or executive leadership authority

Proposed Changes to Definitions*

- Increase the ownership and control percentage by women and/or any members of minority groups (Asian, Black, Hispanic, Middle Eastern and Native American) from 25%+ to 33%+ which is in line with industry standards.
- Add women and/or any members of minority groups (Asian, Black, Hispanic, Middle Eastern and Native American) having 33%+ participation in fund economics/carry to the definition as an alternative to firm ownership and control. This is also in line with industry standards

* Proposed changes must be approved by the Systems.

Outreach Efforts for MWBE and Emerging Managers

The System's commitment to and ongoing pursuit of strong performing diverse and emerging managers is evidenced as follows:

Annual Diverse and Emerging Managers Conference

The Annual Diverse and Emerging Managers Investment Conference, hosted by BAM in partnership with the Systems, provides an opportunity to gain insight into the guiding principles and priorities of the Systems for making and increasing investments with diverse and emerging managers. The conference also provides a unique opportunity for potential managers to meet with staff from BAM and other investment partners. The conference highlights the work BAM does on behalf of the Systems to strengthen diversity among our asset managers and the economic value creation that diversity brings. The conference features asset class-specific panel discussions and speed networking sessions that provide diverse and emerging managers the opportunity to meet one-on-one with BAM's investment team, the Systems' Emerging Manager Program partners, and each System's consultants. The Director of DEI and Emerging Manager Strategy is responsible for overseeing all aspects of the conference planning and execution.

Outreach

The Director of DEI and Emerging Manager Strategy attends industry conferences and events throughout the year to:

- Promote the Systems' Emerging Manager Programs
- Strengthen the pipeline of new investment managers
- Nurture relationships with existing mangers
- Provide thought leadership on DEI and Emerging Manager Programs

Database

BAM maintains a database of diverse and emerging managers by asset class. The purpose is to log each manager meeting to enable manager information to be tracked over time. This database has 1,300+ manager contacts, as of September 2023.

Building a Pipeline

BAM has an open-door investment meeting policy; therefore we encourage managers to contact us and request meetings at least once a year. Manager engagement is based on the stage of the entrepreneur or fund:

Step 1 - Assess manager stage

Step 2 - Commence follow-up based on manager stage

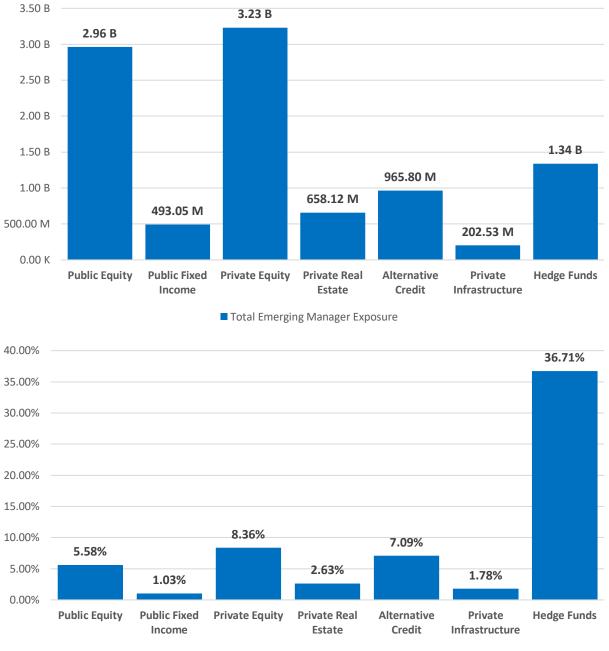
- Pre-deal/Pre-fund:
 - Share EM Program requirements
 - Talk founder through team, track record, ODD, resources, fundraising, and scalability
- Seedless Sponsor:
 - Introduce to relevant EM Program Partner
 - Talk founder through team, track record, ODD and fund formation
- Fund I, II, III or IV:
 - o Introduce to relevant EM Program Partner and other allocators
 - o Understand fundraising goals and targets
 - If potential candidate for Direct Emerging, introduce to asset class team and relevant System consultants
- Large/Established Manager:
 - Introduce to asset class team, System consultants, and other allocators
 - Understand fundraising goals and targets
 - Receive feedback from EM Program partner, other allocators, asset class heads, and System consultants

Step 3 – Allocate, Track and Report

- Emerging Manager Program Partners
 - Track allocations and performance of diverse and emerging managers
 - Strong performance can lead to additional allocations or underlying sub-managers may transition to direct allocations
- Consultants
 - BAM staff works with the Systems' consultants to identify and evaluate MWBE firms for consideration in the System's Fund-of-Fund programs, Direct Emerging Manager Programs and in the Core Portfolio

Emerging Managers

In Fiscal year 2022-2023, the Systems increased exposure to Emerging Managers by over \$1 billion. The 2023 total emerging manager exposure is \$9.85 B, up from \$8.59 B in 2022. These increases can also be attributed to strong performance in equites and a new Fixed Income Emerging Manager mandate.



Emerging Manager % of Asset Class Total Exposure

Emerging Manager Program Partners Allocations to Diverse Managers

Asset Class	FoF Manager Name	% MWBE Allocation
	Bivium*	59%
	Leading Edge*	85%
Public Equity	Legato*	41%
	Xponance*	64%
Fixed Income	Bivium*	77%
Private Equity	Neuberger Berman**	44%
Real Estate	Artemis*	55%
Real Estate	GCM Grosvenor	54%
Private Credit	GCM Grosvenor	40%
Infrastructure	BlackRock	10%

As of June 30, 2023

* = MWBE owned

** = data for NB First Time Fund Program only

Emerging Manager Program Descriptions and Contact Information

Public Equity

Bivium, Leading Edge, and Xponance Programs

- Focus on international equity
- No more than \$5 billion of firm-wide assets under management

Legato Program

- Focus on US small cap equity
- No more than \$2 billion of firm-wide assets under management

Program	Name	Email	
Bivium	Judy Lui	Research@biviumcapital.com	
Leading Edge	Carolyn Diaz Roberts	info@leia.net	
Xponance	Cesar Gonzales Jr.	CGonzales@xponance.com	
Legato	Diana Tamhankar	InvestmentTeam@legatocm.com	

Public Fixed Income

Direct Developing Manager Program

• Larger firms that have transitioned out of the Emerging Manager program as well as managers with similar characteristics that are otherwise sourced

Bivium Program

• No more than \$10 billion of firm-wide assets under management

Program	Name	Email
Bivium	Judy Lui	Research@biviumcapital.com

Private Equity

Direct Program

- Focus on buyout, growth equity, distressed/special situations, and secondaries investment strategies
- Firms with institutional-quality middle and back offices and strong operational controls

Neuberger Berman NYC Northbound Emerging Managers Program

• Raising up to \$750 million

Program	Name	Email
Neuberger Berman	Ethan Cooper	northbound@nb.com

Real Estate

GCM Grosvenor Emerging Manager SMA II

- Firms with less than \$3 billion in total assets under management
- Raising institutional Fund I, II, III, or IV
- Currently targeting fund size of \$1 billion or less

Program	Name	Email
GCM Grosvenor	venor Peter Braffman <u>realestate</u>	

Alternative Credit

Direct Program

- Firms with less than \$2 billion of assets under management
- Raising Fund II or III

GCM Grosvenor Early-Stage Program

- For open-end vehicles Less than \$1 billion in assets under management, an operational track record of less than 3 years, and the first open-end institutional-grade fund raised at current independent organization
- For closed-end vehicles No more than \$1.5 billion in assets under management and an operational track record of less than 6 years, and raising Funds I, II, or III

Program	Name	Email
GCM Grosvenor	Marc lyer	miyer@gcmlp.com

Infrastructure

BlackRock Infrastructure Solutions

- Raising Fund I, II, or III
- No more than \$1.5 billion in aggregate capital commitments

Program	Name	Email
BlackRock	Melissa Ding	GroupBISEmergingManagers@blackrock.com

Hedge Funds

Direct Program

- Firms with less than \$1 billion in assets under management or less than a 3-year track record at time of funding
- Discretionary and systematic macro, commodities, credit, long/short equity, event driven, tactical trading, relative value strategies and focus on low net exposure funds

MWBE and Emerging Managers Performance

MWBE managers have historically generated alpha for the five New York City retirement systems since 2015. In Public Markets all MWBE managers have generated excess returns net of fees. In Private Markets the MWBE firms in the Systems portfolio have outperformed their respective benchmarks with an average PME Spread of 4.9%.

Note that the Public Market Equivalent (PME) Spread is a measure of the opportunity cost of investing in Public Market Equivalents. A positive PME spread indicates outperformance. The Public Equity and Public Fixed Income performance below is as of June 30, 2023, and the remaining asset classes' performance is as of March 30, 2023. Note that past performance is not indicative of future results.

Public Equity

	1 Year Net Excess %	3 Year Net Excess %	5 Year Net Excess %	Since inception
Emerging Managers — Small Cap*	0.88	5.08	3.19	N/A
Emerging Managers — International Equity	1.78%	-0.34%	0.19%	N/A
	1 Year Absolute Net Return %	3 Year Absolute Net Return %	5 Year Absolute Net Return %	Since inception
MWBEs**	24.97%	10.22%	5.54%	12.09%

* The above returns are estimates based on actual returns in each applicable NYC system portfolio using allocations from the ending investment period. This is not meant to be an actual audited composite performance

Public Fixed Income

	1 Year Net Excess %	3 Year Net Excess %	5 Year Net Excess %	S.I. Excess %*
Emerging Managers**	N/A	N/A	N/A	-0.27%
MWBE	0.29%	0.31%	0.26%	0.61%*

* Since inception includes gross and net returns

** The Bivium Emerging Manager Program was funded in November 2022

Private Equity

	Net IRR	Net TVM	PME Spread
Emerging Managers	19.6%	1.94x	8.5%
MWBEs***	17.1%	1.80x	5.9%

* Data is shown since 2011, when the Systems changed their strategy and approach to investing in Private Equity

** The Public Market Equivalent used to calculate the PME Spread was the Russell 3000

*** MWBE returns to do not include emerging MWBEs

Real Estate

	Net IRR	Net TVM	PME Spread
Emerging Managers	13.16%	1.33x	5.55%
MWBEs***	11.09%	1.22x	4.21%

 \ast 2015 marks the year in which the real estate emerging manager program was re-launched

** The Public Market Equivalent used to calculate the PME Spread was 50% Russell 3000 & 50% US Barclays Aggregate bond index

*** MWBE returns to do not include emerging MWBEs

Alternative Credit

	Net IRR	Net TVM	PME Spread
Emerging Managers*	26.30%	1.32x	24.00%
MWBEs***	7.70%	1.29x	3.90%

* This program was incepted in 2015

** The Public Market Equivalent used to calculate the PME Spread was 50% JPM Global High Yield Index + 50% Credit Suisse Leveraged Loan Index

*** MWBE returns to do not include emerging MWBEs

Infrastructure

	Net IRR	Net TVM	PME Spread
Emerging Managers	5.58%	1.1x	6.48%
MWBEs	9.80%	1.3x	5.10%

* The Public Market Equivalent used to calculate the PME Spread was 50% Russell 3000 Index & 50% Barclays US Aggregate Index

Hedge Funds

	Annualized Return	PME Spread
Emerging Managers	5.07%	3.96%
MWBEs	5.76%	4.72%

* The Public Market Equivalent used to calculate the PME Spread was HFRI Fund of Funds Composite Index plus 1%

Emerging Managers Program Expansion Initiative

The strong historical performance of emerging managers both diverse and nondiverse - has prompted a strategic decision to recommend the expansion of our Emerging Manager programs. Since 2015, emerging and MWBE managers have generated excess returns net of fees for all five systems. Increasing emerging manager exposure is designed to allow the Systems to capitalize on the expertise and historical success demonstrated by these managers. We believe this expansion aligns with the overarching goal of securing long-term financial stability for pension beneficiaries, ensuring prudent diversification, and harnessing the potential of dynamic and successful asset management strategies.

The decision to expand the Systems' Emerging Manager programs is driven by both strong historical performance and by the recognition that diversity in the gender, ethnicity, backgrounds, and size of asset managers helps to contribute outperformance to the overall pension portfolio. Embracing a variety of asset managers, including diverse and emerging players, is designed to enhance the resilience of the pension fund to market fluctuations and economic shifts. We believe this strategic move acknowledges the value of a well-balanced and diversified portfolio in mitigating risks and optimizing long-term returns for the benefit of pension beneficiaries.

By expanding these programs consistent with our fiduciary duty and seeking the highest riskadjusted returns for the Systems we anticipate that by 2029 20% of our U.S.-based actively managed assets will be with MWBE managers.

Fiscal Year 2023 Program Expansions

In early 2022, TRS and NYCERS approved a \$500 million allocation to Bivium Capital Partners for the development of an Emerging Manager Program in the Fixed Income. These funds were not deployed until Fiscal year 2023. The following Emerging Manager program expansions were approved by at least a subset of the five pension funds in the second half of 2023 and will be reflected in the 2024 fiscal year report:

- GCM Grosvenor Real Estate Emerging Manager SMA II
- BlackRock Infrastructure Solutions NYC Infrastructure Emerging Manager Opportunities Fund II (
- Neuberger Berman NYC Northbound Emerging Managers Program II(Private Equity)
- Fully implementing the previously approved 6% allocation to Emerging Managers in Public Equity

Program Expansions Fiscal Year 2024 and Beyond

In partnership with CIO, Steve Meier and the Asset Class Heads in the Bureau of Asset Management, the Director of DEI and Emerging Manager Strategy has presented recommendations to each of the Systems boards. The investment staff will continue to work with consultants to identify, report, track and evaluate what they believe are high performing diverse and emerging managers for consideration in the Systems portfolios. The following strategies have been highlighted and will each be diligenced and presented to the boards for discussion and potential approval in fiscal year 2024:

- Expanding the successful Direct Emerging Manager Program in Private Equity
- Creating a Direct Emerging Manager Program in Real Estate and Alternative Credit
- Expanding the Fixed Income Emerging Manager Program to include Direct Emerging
- Increase in the Emerging Manager allocation in Public Equity from 6% to 10%

Breaking down the Data by Asset Class (MWBE and Emerging)

- The demographic category assigned to each manager was based off of the highest percentage of ownership reported by the manager
- MBE designates a firm majority or substantially owned by a male member of a minority group (Asian, Black, Hispanic, Middle Eastern or Native American)
- WBE designates a firm majority or substantially owned by a woman
- Amounts shown below are total exposure, including both net asset value and unfunded commitments.

Public Equities

ASSET CLASS TOTAL	L							
	TRS	NYCERS	POLICE	FIRE	BERS	Total		
	2.81 B	2.15 B	1.39 B	407.03 M	54.32 M	6.81 B		
LARGE MWBE FIRM	IS							
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %
	2.10 B	1.64 B	1.11 B	311.83 M		5.16 B		
Brown Capital Management	429.46 M		144.11 M	58.70 M		632.27 M	Black MBE	100%
Causeway Capital Management	1.51 B	1.49 B	710.88 M	253.14 M		3.96 B	White WBE	100%
Earnest Partners	162.12 M	151.32 M	253.00 M			566.44 M	Black MBE	65%
EMERGING MWBE	FIRMS							
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %
	711.72 M	504.60 M	277.68 M	95.20 M	54.32 M	1.64 B		
Bivium – Fund of Funds	188.39 M	123.41 M				311.80 M		
ARGA Investment Management	58.02 M	41.81 M				99.83 M	Asian MBE	51%
Channing Capital Management	32.62 M	22.05 M				54.67 M	Black MBE	100%
Promethos Capital	49.98 M	35.78 M				85.75 M	White WBE	51%
Redwood Investments	23.64 M	11.76 M				35.40 M	White WBE	58%
RVX Asset Management	24.12 M	12.02 M				36.15 M	Hispanic MBE	94%
Leading Edge – Fund of Funds	257.43 M	183.44 M	136.13 M			577.00 M		
Ativo Capital Management	46.38 M	33.03 M	26.02 M			105.43 M	Hispanic MBE	98%
Haven Global Partners	57.42 M	41.07 M	30.63 M			129.12 M	Black MBE	78%
Promethos Capital	56.76 M	40.63 M	30.07 M			127.47 M	White WBE	51%

Redwood Investments	43.79 M	31.04 M	23.60 M			98.44 M	White WBE	58%
Solstein Capital	53.08 M	37.66 M	25.81 M			116.55 M	Hispanic WBE	100%
Legato – Fund of Funds	58.76 M	59.41 M	35.99 M	10.78 M	5.95 M	170.87 M		
Altravue Capital	29.76 M	30.09 M	18.16 M	5.47 M	3.00 M	86.48 M	Black WBE	90%
Lisanti Capital Growth	12.07 M	12.21 M	7.40 M	2.28 M	1.24 M	35.20 M	White WBE	52%
Nicholas Investment Partners	16.93 M	17.10 M	10.43 M	3.03 M	1.71 M	49.20 M	White WBE	55%
Xponance – Fund of Funds	207.14 M	138.35 M	105.56 M	84.42 M	48.37 M	583.84 M		
ARGA Investment Management	50.76 M	33.74 M	26.13 M	20.70 M	11.98 M	143.32 M	Asian MBE	51%
Foresight Global Investors	46.22 M	30.94 M	22.87 M	18.81 M	10.73 M	129.58 M	Asian MBE	100%
Haven Global Partners	35.32 M	23.42 M	17.17 M	13.70 M	8.08 M	97.69 M	Black MBE	78%
Martin Investment Management	34.56 M	23.41 M	18.77 M	14.85 M	8.10 M	99.69 M	White WBE	51%
Redwood Investments	40.29 M	26.82 M	20.62 M	16.36 M	9.49 M	113.57 M	White WBE	58%

Fixed Income

ASSET CLASS TOTAL									
	TRS	NYCERS	POLICE	FIRE	BERS	Total			
	433.38 M	1.60 B	666.51 M	77.66 M	217.54 M	3.00 B			
LARGE MWBE FIRM	S								
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %	
	258.94 M	1.45 B	666.51 M	77.66 M	114.26 M	2.56 B			
Advent Capital Management		895.75 M	405.50 M			1.30 B	Black MBE	70%	

GIA Partners	86.98 M	183.11 M	66.32 M	33.57 M		369.98 M	Hispanic MBE	88%
LM Capital Group	116.67 M	321.72 M	66.18 M	29.77 M		534.34 M	Hispanic MBE	90%
Pugh Capital Management	55.29 M	46.76 M	28.24 M	14.32 M	114.26 M	258.88 M	Black WBE	90%
Taplin, Canida & Habacht			100.27 M			100.27 M	Black MBE	90%
EMERGING MWBE F	IRMS							
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %
	174.44 M	154.25 M			103.28 M	431.96 M		
Bivium – Fund of Funds								
Barksdale Investment Management	20.73 M	20.73 M				41.46 M	Asian WBE	51%
Ducenta Squared Asset Management	25.62 M	20.50 M				46.12 M	Asian MBE	93%
Integrity Fixed Income Management	25.98 M	20.81 M			35.38 M	82.17 M	White WBE	51%
New Century Advisors	30.48 M	30.82 M			33.91 M	95.21 M	White WBE	58%
Ramirez Asset Management	35.58 M	30.50 M				66.07 M	Hispanic MBE	94%
Semper Capital Management	36.05 M	30.89 M			33.99 M	100.93 M	Black MBE	79%

Private Equity

ASSET CLASS TOTAL									
	TRS	NYCERS	POLICE	FIRE	BERS	Total			
	2.22 B	2.26 B	1.38 B	499.71 M	410.27 M	6.77 B			
LARGE MWBE FIRM	LARGE MWBE FIRMS								
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %	
	1.93 B	1.97 B	1.24 B	449.05 M	336.46 M	5.93 B			
Clearlake Capital							Hispanic		
Group	211.01 M	218.67 M	152.90 M	57.59 M	45.88 M	686.05 M	MBE	78%	
Grain Management	78.22 M	74.32 M	31.04 M	13.81 M	19.70 M	217.08 M	Black MBE	100%	

One Rock Capital Partners	46.66 M	51.45 M	32.90 M	11.37 M	29.91 M	172.28 M	Asian MBE	51%
Palladium Equity Partners	28.30 M	91.27 M	60.33 M	17.24 M	10.59 M	207.73 M	Hispanic MBE	49%
Siris Capital Group	141.55 M	154.00 M	101.20 M	30.44 M	17.32 M	444.51 M	Black MBE	33%
Stellex Capital Management	85.14 M	86.78 M	44.90 M	17.57 M	30.68 M	265.07 M	Black MBE	51%
The Vistria Group	75.54 M	72.93 M	54.16 M	15.24 M	17.30 M	235.17 M	Black MBE	51%
Thoma Bravo	158.62 M	162.59 M	111.04 M	39.66 M	26.77 M	498.68 M	Hispanic MBE	30%
Valor Equity Partners	146.14 M	150.43 M	77.30 M	30.36 M	24.22 M	428.45 M	Hispanic MBE	90%
Vista Equity Partners	961.97 M	912.52 M	574.81 M	215.78 M	114.08 M	2.78 B	Black MBE	50%
EMERGING MWBE I	FIRMS							
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %
	142.43 M	120.66 M	44.87 M	22.97 M	41.35 M	372.28 M		
ACON Investments	151.42 K	237.94 K	43.26 K	21.63 K		454.25 K	Hispanic MBE	100%
Arrowhead Investment Management			813.90 K	244.18 K		1.06 M	White WBE	25%
Base10 Partners					24.60 M	24.60 M	Black MBE	100%
Grey Mountain Partners	1.26 M	1.08 M	367.78 K	193.57 K		2.90 M	Asian MBE	50%
ICV Partners	32.92 M	19.01 M	9.71 M	4.85 M	3.17 M	69.67 M	Black MBE	80%
Incline Equity Partners	1.62 M	2.17 M	451.15 K	270.69 K		4.51 M	Asian MBE	33%
Integrum Holdings	31.80 M	28.82 M	9.44 M	4.97 M	4.47 M	79.49 M	White WBE	29%
Levine Leichtman Capital Partners	6.93 M	9.71 M	2.77 M	1.39 M		20.80 M	White WBE	100%
Lightbay Capital	29.57 M	26.61 M	8.87 M	4.43 M	4.43 M	73.91 M	Asian MBE	40%
Mill City Capital	5.37 M	4.59 M	1.57 M	786.40 K	785.91 K	13.11 M	White WBE	33%
New Mainstream Capital	24.02 M	20.90 M	7.01 M	3.90 M	3.90 M	59.73 M	Hispanic MBE	55%

RLJ Equity Partners	3.40 M	2.81 M				6.21 M	Black MBE	100%
Scale Venture Partners			3.82 M	1.91 M		5.73 M	White WBE	25%
Starvest Partners	5.38 M	4.72 M				10.10 M	White WBE	100%
Neuberger Berman – Fund of Funds	146.14 M	166.80 M	91.89 M	27.70 M	32.46 M	464.98 M		
Avance Investment Management	4.74 M	6.46 M	2.74 M	616.56 K		14.55 M	Hispanic MBE	75%
Banneker Partners	4.72 M	6.44 M	2.73 M	614.90 K		14.51 M	Black MBE	100%
Coalesce Capital	6.18 M	8.44 M	3.57 M	804.96 K		19.00 M	White WBE	100%
Ethos Capital	7.19 M	9.82 M	4.16 M	936.69 K		22.11 M	Middle Eastern MBE	50%
Knox Lane	5.94 M	8.11 M	3.44 M	773.68 K		18.26 M	Asian MBE	33%
Red Arts Capital	7.17 M	9.78 M	4.14 M	933.56 K		22.03 M	Black MBE	100%
Reverence Capital Partners	99.45 M	103.09 M	64.90 M	21.62 M	32.46 M	321.52 M	Hispanic MBE	60%
Wavecrest Growth Partners	4.42 M	6.03 M	2.55 M	575.39 K		13.58 M	Asian MBE	100%
WM Partners	6.32 M	8.63 M	3.66 M	823.20 K		19.43 M	Hispanic MBE	100%

* Note that we have excluded Fairview, JPM, Neuberger NorthBound Emerging Manager Custom Fund, GCM as we do not have demographic data or System-level breakdown

* Fairview and JPM are included in aggregate numbers but not in manager breakdown as we do not have the System-level breakdown

Real Estate

ASSET CLASS TOTAL								
	TRS	NYCERS	POLICE	FIRE	BERS	Total		
	207.97 M	182.68 M	27.73 M	3.35 M	24.96 M	446.69 M		
LARGE MWBE FIRM	IS							
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %
	72.76 M	61.81 M	27.73 M	3.35 M	24.96 M	190.61 M		
Basis Management Group	72.76 M	61.81 M	27.73 M	3.35 M	24.96 M	190.61 M	Black WBE	51%
EMERGING MWBE	ļ	01.81 101	27.75 101	3.33 101	24.90 10	190.01 10	VVBL	51/0
							MWBE	MWBE %
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	STATUS	
	135.21 M	120.87 M				256.08 M		
GCM Grosvenor – Fund of Funds	135.21 M	120.87 M				256.08 M		
Alpaca VC	7.80 M	6.97 M				14.77 M	Hispanic MBE	60%
Arc Capital Partners	9.26 M	8.27 M				17.53 M	Black MBE	100%
Basis Management Group	10.46 M	9.35 M				19.82 M	Black WBE	51%
Brasa Capital Management	26.09 M	23.33 M				49.42 M	Hispanic MBE	100%
Ethos Investco, LLC	11.07 M	9.89 M				20.96 M	Black WBE	51%
Grandview Property Partners, LLC	13.93 M	12.45 M				26.38 M	Asian MBE	62%
Hillcrest Finance LLC	9.91 M	8.86 M				18.76 M	Black WBE	100%
Locust Point Capital, Inc.	8.60 M	7.69 M				16.29 M	White WBE	33%
MCB Real Estate, LLC	3.50 M	3.13 M				6.62 M	Black MBE	53%
Pennybacker Capital, LLC	6.93 M	6.20 M				13.13 M	Asian MBE	50%

RailField Partners	7.75 M	6.93 M	14.68 M	Black MBE 6	57%
Raith Capital Partners	7.73 M	6.91 M	14.65 M	Asian MBE 4	18%
Redcar Properties Ltd.	8.96 M	8.01 M	16.97 M	Asian MBE 5	50%
Sundance Bay Holdings, LLC	3.23 M	2.88 M	6.11 M	Black WBE 4	10%

Alternative Credit

ASSET CLASS TOTAL	_									
	TRS	NYCERS	POLICE	FIRE	BERS	Total				
	275.61 M	261.76 M	158.18 M	31.43 M	42.15 M	769.14 M				
LARGE MWBE FIRMS										
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %		
	158.54 M	153.27 M	110.10 M	22.03 M	42.15 M	486.10 M				
Brightwood Capital Advisers	158.54 M	153.27 M	110.10 M	22.03 M	42.15 M	486.10 M	Black MBE	100%		
	FIRMS									
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %		
	117.07 M	108.49 M	48.08 M	9.40 M		283.04 M				
GCM Grosvenor – Fund of Funds	117.07 M	108.49 M	48.08 M	9.40 M		283.04 M				
Altura Capital Group, LLC	4.25 M	3.71 M	1.63 M			9.59 M	Hispanic MBE	100%		
Charlesbank Capital Partners, LLC	9.61 M	11.12 M	5.06 M	4.04 M		29.83 M	Asian WBE	34%		
ComVest Group Holdings, LLC	14.10 M	12.29 M	5.40 M			31.79 M	Hispanic MBE	35%		
Crayhill Capital Management, L.P.	12.55 M	10.94 M	4.81 M			28.30 M	Hispanic MBE	51%		
Hollis Park Partners LP	12.34 M	10.76 M	4.73 M			27.84 M	Black MBE	86%		

Paceline Equity Partners	33.88 M	33.18 M	14.81 M	5.36 M	87.23 M	White WBE	51%
Reverence Capital Partners, L.P.	14.56 M	12.70 M	5.58 M		32.83 M	Hispanic MBE	60%
TELEO Capital Management LLC	15.79 M	13.78 M	6.06 M		35.63 M	Hispanic MBE	33%

Infrastructure

ASSET CLASS TOTAL	ASSET CLASS TOTAL										
	TRS	NYCERS	POLICE	FIRE	BERS	Total					
	500.21 M	426.46 M	250.22 M	82.29 M	68.68 M	1.33 B					
LARGE MWBE FIRMS											
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %			
	487.11 M	412.95 M	241.95 M	79.47 M	68.68 M	1.29 B					
Global Infrastructure Management	487.11 M	412.95 M	241.95 M	79.47 M	68.68 M	1.29 B	Black MBE	25%			
EMERGING MWBE	FIRMS			, i i i i i i i i i i i i i i i i i i i							
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %			
	13.10 M	13.50 M	8.27 M	2.82 M		37.69 M					
BlackRock – Fund of Funds	13.10 M	13.50 M	8.27 M	2.82 M		37.69 M					
Sandbrook	6.74 M	6.95 M	4.25 M	1.45 M		19.40 M	Hispanic MBE	40%			
Seraya	6.36 M	6.55 M	4.01 M	1.37 M		18.29 M	Asian MBE	100%			

Hedge Funds

ASSET CLASS TOTAL									
	TRS	NYCERS	POLICE	FIRE	BERS	Total			
			92.99 M	287.43 M		380.41 M			
LARGE MWBE FIRM	S								
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %	
			258.80 M	83.19 M		341.99 M			
SRS Investment Management			258.80 M	83.19 M		341.99 M	Asian MBE	60%	
EMERGING MWBE	FIRMS								
Firm Name	TRS	NYCERS	POLICE	FIRE	BERS	Total	MWBE STATUS	MWBE %	
			28.62 M	9.79 M		38.42 M			
Standard General			28.62 M	9.79 M		38.42 M	Asian MBE	51%	

Overview of the Bureau of Public Finance

The Public Finance Bureau manages all aspects of City capital borrowing for the Comptroller, acting jointly with the Mayor's Office of Management and Budget ("OMB"), as required under State law. In this role, it promotes New York City's short-term and long-term financial health by establishing and enforcing fiscally responsible debt practices, monitoring the City's portfolio of outstanding bonds, and securing the lowest risk-appropriate borrowing cost on debt for the City and its affiliated entities. In addition, Public Finance directs interactions with ratings agencies, investors, and municipal market financial services firms on behalf of the Comptroller.

The Comptroller and the Mayor share the responsibility for issuing bonds through the City's General Obligation ("GO"), Transitional Finance Authority ("TFA") and Municipal Water Finance Authority ("NYW") credits (collectively, the "Issuers" or the "City"), the three main vehicles for financing capital spending. New York City and its related entities are in aggregate one of the largest municipal bond issuers in the nation. In Fiscal Year 2023, the City sold nearly \$16 billion of debt for new capital projects or refinancing of outstanding bonds for debt service savings.

Public Finance provides leadership and support on issues that relate to debt or to City Issuers. The Deputy Comptroller and other senior staff may represent the Comptroller's Office as speakers at municipal market conferences and events and in testimony at the City Council on related topics.

The Public Finance Bureau's MWBE Program

The Public Finance Bureau consistently promotes MWBE vendors' access and growth, so that MWBE firms can capitalize on opportunities in public finance. Bond underwriting and sales represent the largest portion of the Issuers' yearly spending, and the Public Finance Bureau contracts with MWBE firms for the financial advisor and specialized legal counsel roles as well.

Bond Underwriting

Beginning in the 1990's, New York City began to implement measures to promote MWBE participation in its bond transactions. As part of these efforts, in 2002, the City created the "special bracket tier" for underwriters, which aims to elevate firms that are looking to serve as a lead underwriter on a NYC transaction. Firms assigned to the special bracket are those that are not generally familiar with the inner workings of a NYC bond sale. Firms in the special bracket are given an opportunity to serve as a co-senior managing underwriter on a City bond issue, giving them the experience to potentially become a senior book manager for a future transaction.

The special bracket has played a key role in promoting MWBE firms and led to the City appointing its first MWBE underwriter as book-running senior manager in 2004 on a NYW transaction. At

the time, the City was one of the first large issuers to rely on these smaller firms to run sizeable bonds issues. All of the City's current MWBE book-running senior managers have been promoted from the special bracket, and since its creation the City has issued more than \$40 billion of bonds underwritten by MWBE firms serving in the book-running senior manager role.

Between Fiscal Years 2019 and 2023, the City issued more than \$16.3 billion of GO and TFA bonds for which MWBE firms served in the book-running senior manager role. Between Fiscal Years 2019 and 2023, MWBE firms in the GO and TFA underwriting syndicate and selling group have earned more than \$54.8 million in takedown (the primary form of compensation for underwriters), representing an average of more than 33% of total takedown paid over that period.

Fiscal Year:	2019	2020	2021	2022	2023	Total
Total Takedown (\$)	28,048,230	22,529,366	39,985,413	32,898,386	41,198,471	164,659,866
MWBE Takedown (\$)	11,408,107	6,843,065	13,827,961	9,993,627	12,781,173	54,853,932
MWBE %	40.67%	30.37%	34.58%	30.38%	31.02%	33.31%

Financial and Swap Advisors

Since 2006, the GO and TFA credits have each had a least one MWBE advisor that provides advisory and price guidance services on every transaction, as well as general advisory services for non-transaction-related issues. Additionally, the GO and TFA credits have had a MWBE swap advisor since 2011.

Between Fiscal Years 2019 and 2023, the GO and TFA financial and swap advisors earned nearly \$3.3 million in fees representing an average of more than 36% of fees paid over that period.

Fiscal Year:	2019	2020	2021	2022	2023	Total
Total Fee (\$)	1,601,742	1,807,247	1,869,095	1,678,494	2,103,651	9,060,229
MWBE Fees (\$)	411,918	639,078	710,214	687,944	843,433	3,292,587
MWBE %	25.72%	35.36%	38.00%	40.99%	40.09%	36.34%

Bond, Underwriter, and GO Disclosure Counsel

For many years, the GO and TFA credits have had at least one MWBE firm serving in a counsel position. MWBE firms have been appointed to serve as bond counsel, underwriters' counsel, and GO disclosure counsel.

Between Fiscal Years 2019 and 2023, MWBE counsel working on City bond transactions earned more than \$4.9 million in fees, representing an average of more than 21% of fees paid over that period.

Fiscal Year:	2019	2020	2021	2022	2023	Total
Total Fees	3,785,000	4,225,000	5,137,800	4,070,700	5,703,400	22,921,900
MWBE Fees	680,500	941,250	1,095,800	932,000	1,260,400	4,909,905
MWBE %	17.98%	22.28%	21.33%	22.90%	22.10%	21.42%

The Bureau has been able to meaningfully increase participation by MWBE firms in the City's financings, which benefits the MWBE firms directly through the fees they earn, as well as indirectly by increasing their ranking on industry "league tables" and ensuring their visibility in the municipal market.

Open-Door Policy and Procurement

The Comptroller's Office has an open-door policy in which any firm that wishes to discuss their capabilities and offer their services related to the issuance of bonds can meet with the Public Finance Bureau, as well as members of OMB and the Law Department. Many MWBE firms have and continue to take advantage of this long-standing policy which provides firms with an opportunity to gain access and a better understanding of the City's financing programs.

The RFP process is the primary avenue for any firm to be appointed to a role in one of the City's financings. Underwriter and Financial Advisor RFPs are managed jointly by the Comptroller's Office and OMB; Bond Counsel and Disclosure Counsel RFPs, which follow Procurement Policy Board rules, are managed by the Law Department with the participation and concurrence of the Comptroller's Office and OMB. All RFPs and procurements are done on multi-year cycles, typically ranging from 3 to 5 years, except for selling group members, which may be added at any time by filling out a questionnaire.

Since 2009 there have been several RFPs and procurements for each of these roles, and it has been a long-standing policy goal of the Comptroller's Office to look for ways to increase MWBE participation.

Highlights of the most recent procurements the City has undertaken are below:

• Underwriters: In August 2020, the City completed its most recent underwriter RFP, appointing nine senior managing underwriters, three of which (33%) are MWBE firms, for GO/TFA bonds and five senior managing underwriters, two of which (40%) are MWBEs, for NYW bonds. This represents an increase from the previous selection process in 2016, where 30% of GO and TFA senior managers and 33% of NYW senior managers were MWBEs. In addition, 32% and 30% of GO/TFA and NYW co-managing underwriters, respectively, are MWBE firms.

In 2016 the City, TFA, and NYW changed their policies on how underwriters are compensated to provide for a "special designation" of certain small firm co-managers, the majority of which are MWBE firms, resulting in these firms receiving at least 10% of the total takedown (the per bond underwriting compensation representing most of the total

fees paid to underwriters). As a result of this special designation policy, these firms received several million dollars in underwriting fees since the policy was implemented.

The City has also promoted MWBE firms from the selling group to serve in the syndicate. Selling group members are firms that place orders for individual accounts, bank trusts, and investment advisors during the retail order period for bonds. MWBEs add value to the bond sale process by providing new distribution channels and bringing in new investors and the City tries to ensure that their orders are filled during the allotment process. Firms that are part of the senior manager pool, which also includes MWBEs, may be "designated" (i.e., compensated) for any institutional orders that they place.

 Financial and Swap Advisor: In August 2019, the City completed its most recent financial advisor and swap advisor RFP. Seven firms submitted responses for consideration to be financial advisors to the City and its related issuers. Following a competitive process, the City appointed two co-financial advisory firms to each of its three main credits (GO, TFA, and NYW). MWBE firms make up half of the financial advisor firm pairing for each of the City's three main credits.

The City's swap advisor prior to the 2019 RFP was a MWBE. Based on the firm's strong performance in that role and its RFP response compared to the other submissions, the City reappointed this firm as its swap advisor.

• Bond, Underwriter, and GO Disclosure Counsel: In July 2018, the City completed a procurement for outside counsel that selected Bond Counsel and established a pool of Underwriter's Counsel for each of the Issuers, as well as Special Disclosure Counsel for the City's GO credit.

The counsel RFP resulted in an MWBE firm being appointed to a co-counsel position for each of the nine available assignments across the City's issuers.

The City has come a long way since it first adopted policies that have promoted growth of MWBE firms participating in the City's financings and partnerships with those firms have proved to be effective over the years. New York City is not the only issuer that has taken an active role of promoting MWBE firms in their bond transactions, but it has been a leader in establishing policies, with many other large issuers adopting similar policies that have continued to provide growth opportunities for MWBE firms.

Certification and Participation Process

During the RFP process, MWBE firms are encouraged to apply and share their MWBE ownership status in their response. The City gives additional consideration to MWBEs in its RFP selection criteria across its Issuers. For NYW, the relevant jurisdiction for MWBE certification is the State of New York; for all other Issuers, the relevant jurisdiction for MWBE certification is the City. Additional information on City MWBE certification is available through the <u>NYC Department of Small Business Services</u>.

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Disclosures

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