2020 Popular Annual Financial Report
New York State Teachers' Retirement System
As of June 30, 2020

Strong. Resilient. Secure.

A Message From the Executive Director & Chief Investment Officer

On behalf of our Board and staff, I am pleased to present you with this Popular Annual Financial Report (PAFR) of the New York State Teachers' Retirement System (NYSTRS) for the fiscal year ended June 30, 2020. This document summarizes the System's financial position for the 2020 fiscal year. For additional details, see our Comprehensive Annual Financial Report (CAFR) at NYSTRS.org.

The System is governed by a 10-member Board of Trustees, representing various stakeholders. Trustees are responsible as fiduciaries to protect the long-term value of the System's investment portfolio and provide benefit security for members. The Board receives counsel from staff, advisory committees and investment consultants to help formulate its investment policy.

NYSTRS is one of the 10 largest public funds in the U.S. based on portfolio size. The System is also consistently among the top-performing and best-funded public pension plans. Consistent receipt of required employee and employer contributions; a disciplined, risk-controlled investment policy; and partnerships with top-performing fund managers are major contributing factors to this stability. As a long-term investor with liabilities often not payable for three decades or more, our Board and staff take a prudent approach to asset management.

The System's year-end net assets totaled $120.5 billion. During the same period, benefits paid to retirees and beneficiaries were approximately $7.5 billion.

The plan's funded ratio as of June 30, 2019, the date of the most-recent annual actuarial valuation and calculated using the Actuarial Value of Assets, was 99.6%. The System's total portfolio returned 3.5%, net of fees, for the fiscal year ended June 30, 2020. Our 30-year rate of return is 8.6%, net of fees.

On behalf of all of us at NYSTRS, I want to offer assurance that our members' retirement benefits continue to be safe and secure. Despite the economic turbulence caused by the pandemic during the final quarter of the fiscal year, the System ended the year with a positive investment return and remains among the best-funded public pension systems in the country.

We also pride ourselves on being the model for exceptional customer service. We have remained dedicated to meeting the needs of our members, both active and retired, even as the pandemic forced us to adopt new ways of operating. Our mission, as always, is to provide our members with a secure pension for life.

Respectfully,

Thomas K. Lee
Executive Director & Chief Investment Officer

Who We Are

NYSTRS was established in 1921 by an act of the state legislature. NYSTRS administers the fund from which public school teachers and administrators employed outside New York City receive retirement and ancillary benefits.

NYSTRS directs a defined benefit plan, with eligibility for benefits based on factors such as age, years of service and tier of membership. Eligible members receive a service retirement or disability pension; death benefits; the ability to borrow from member contributions; and, in some cases, coverage for beneficiaries.
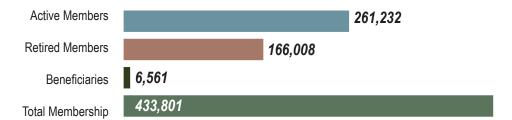
Payments to eligible members and beneficiaries are guaranteed by law and cannot be diminished or impaired under New York's constitution. Benefit improvements, such as early retirement incentives, must be enacted into law by the state legislature and governor.

Defined benefit plans provide recipients a retirement income for as long as they live. This differs from defined contribution plans, such as 401(k)s, where a recipient can outlive accumulated savings.

Membership Snapshot

Category	Count
Active Members	261,232
Retired Members	166,008
Beneficiaries	6,561
Total Membership	433,801

Active NYSTRS Members

77% Female   23% Male

Membership in NYSTRS is mandatory for all full-time teachers, teaching assistants, guidance counselors and administrators employed in New York State public schools (excluding those in New York City), Boards of Cooperative Educational Services (BOCES), or charter schools that opt to participate as an employer in NYSTRS. Membership for teachers employed less than full time is optional.

Those employed by a New York State community college or the State University of New York (SUNY) generally may elect membership in NYSTRS, the New York State and Local Employees' Retirement System or the Optional Retirement Program. Some teachers and administrators who are not members of a New York State United Teachers (NYSUT) bargaining unit and whose estimated annual wages are $75,000 or more may join the Optional Retirement Program instead of NYSTRS.

In New York, there are six tiers of membership, with different benefit structures and eligibility requirements for each tier. A member is placed in the tier in effect when the member joins NYSTRS.

NYSTRS serves nearly 434,000 active and retired members, including beneficiaries. The System also serves 822 employers — including public school districts, BOCES, institutions of higher education and charter schools that elect to participate.

Supplementary Information

NYSTRS management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles. KPMG LLP performed an independent audit of such financial statements and expressed an unmodified opinion thereon. To view the financial statements and KPMG's report, see the Financial section of our Comprehensive Annual Financial Report (CAFR) at NYSTRS.org.

In addition, recognition from various industry organizations demonstrates NYSTRS' commitment to excellence in financial reporting. Honors received within the fiscal year ended June 30, 2020 include:

- Certificate of Achievement for Excellence in Financial Reporting, awarded by the Government Finance Officers Association (GFOA) of the United States and Canada.
- Distinguished Budget Presentation Award, also awarded by GFOA.
- Public Pension Principles Achievement Award, presented by the Public Pension Coordinating Council.

The information contained in this document came primarily from NYSTRS' Comprehensive Annual Financial Report, Fiscal Years Ended June 30, 2020 and 2019. A copy of that report is available at NYSTRS.org.

Financial Highlights

NYSTRS has made benefit payments on time and without fail throughout its nearly 100-year history. Our total net position at fiscal year-end 2020 was valued at $120.5 billion.

The System is one of the best-funded public pension plans in the nation. As of June 30, 2019, the most-recent calculation available, the System's funded ratio was 101.2% based on the market value of assets and 99.6% based on the actuarial value of assets. The actuarial value of assets smooths the volatility inherent in the market value of assets by phasing in unexpected gains and losses over a period of five years.
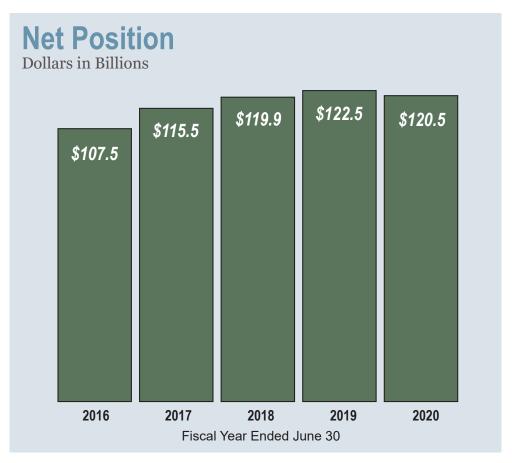
Funded Ratio*

	2015	2016	2017	2018	2019
Market Value of Assets	104.1%	98.4%	99.8%	100.9%	101.2%
Actuarial Value of Assets	94.2%	97.9%	97.7%	99.2%	99.6%

■ Market Value of Assets   ■ Actuarial Value of Assets

Calculated using the Entry Age Normal Cost Method

Funding Sources
1990-2020

Investment Income 84%

Employer & Member Contributions 16%

Net Position
Dollars in Billions

2016	2017	2018	2019	2020
$107.5	$115.5	$119.9	$122.5	$120.5

Fiscal Year Ended June 30

Other financial highlights for the fiscal year ended June 30, 2020:

- The System paid out approximately $7.5 billion in benefits to members and beneficiaries.
- Contributions collected from employers totaled $1.5 billion.
- System investments experienced appreciation of $1.6 billion in 2020.

Looking for more detailed information?

NYSTRS' Comprehensive Annual Financial Report (CAFR) offers more information about the System's financial status, investments and statistics. Visit the Library at NYSTRS.org to read the CAFR. To request a printed copy, email us at news@nystrs.org.

The Library of our website also includes a host of Infographics that further illustrate the System's finances and statistics.
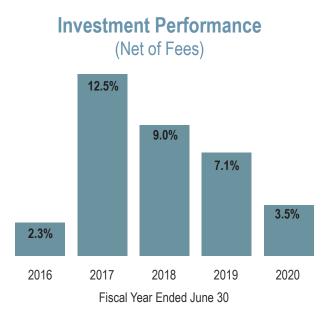
Investment Highlights

System assets are broadly diversified among 11 primary asset classes: domestic equity, international equity, global equity, private equity, real estate equity, domestic fixed income, high-yield bonds, global bonds, real estate debt, private debt, and cash equivalents.
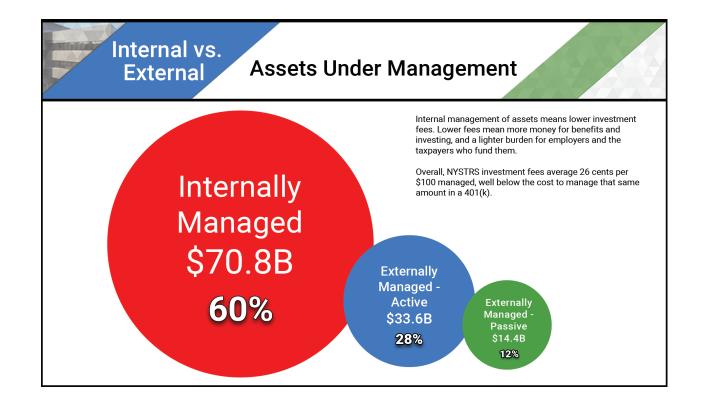
NYSTRS' total fund return for the fiscal year was 3.5% net of fees. It marked the 11th consecutive year the System posted a positive return, with returns in six of those years exceeding the System's assumed rate of return.

Other highlights include:

- Over the past 30 years, net assets have grown by $95 billion.
- NYSTRS' 10-year annualized net rate of return was 9.6% and our 30-year rate of return was 8.6%.
- Over the past 30 years, 84% of NYSTRS' income was generated by investment returns.
- More than half of the System's assets are managed internally. Managing assets internally keeps administrative costs down, which in turn leaves more money for paying benefits and future investments.
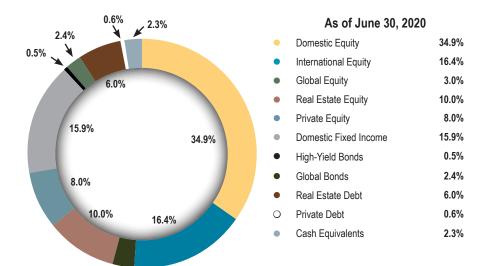
Investment Returns*	
(Net of Fees)	
30-Year	8.6%
25-Year	8.1%
20-Year	6.1%
15-Year	7.1%
10-Year	9.6%
5-Year	6.8%
	* As of 6/30/20

Investment Performance
(Net of Fees)

Fiscal Year	Return
2016	2.3%
2017	12.5%
2018	9.0%
2019	7.1%
2020	3.5%

Fiscal Year Ended June 30

Internal vs. External

Assets Under Management

Internal management of assets means lower investment fees. Lower fees mean more money for benefits and investing, and a lighter burden for employers and the taxpayers who fund them.

Overall, NYSTRS investment fees average 26 cents per $100 managed, well below the cost to manage that same amount in a 401(k).

Internally Managed $70.8B — 60%

Externally Managed - Active $33.6B — 28%

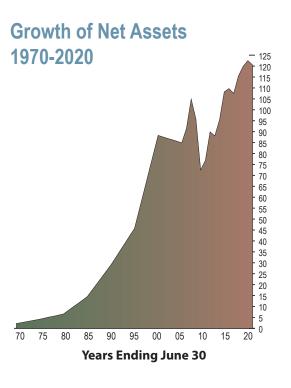Externally Managed - Passive $14.4B — 12%

Asset Allocation

The most significant contributor to a fund's long-term investment performance is asset allocation. The allocation process helps control risk and ensures the overall portfolio is broadly diversified. NYSTRS' Board, with the assistance of an external consultant, reviews the asset allocation policy on an annual basis.

As of June 30, 2020

Domestic Equity	34.9%
International Equity	16.4%
Global Equity	3.0%
Real Estate Equity	10.0%
Private Equity	8.0%
Domestic Fixed Income	15.9%
High-Yield Bonds	0.5%
Global Bonds	2.4%
Real Estate Debt	6.0%
Private Debt	0.6%
Cash Equivalents	2.3%

Growth of Net Assets 1970-2020

Years Ending June 30

Committed to The Highest Ethical Standards of Conduct

NYSTRS strives to model strong ethical values within the pension industry. Our Board and staff take their fiduciary responsibilities seriously and are committed to operating in an environment of transparency.

System staff adhere to the following guiding principles of ethics and conduct:
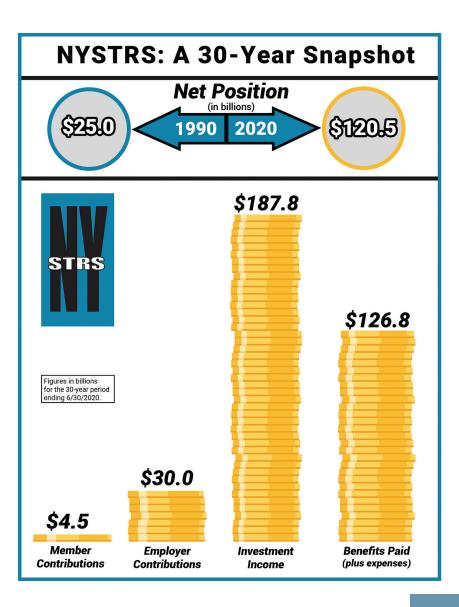
Ensure compliance with all applicable laws, ethical and professional standards, and NYSTRS' policies and procedures.

Protect the interest of stakeholders, including members, employers and the public.

Act with integrity at all times to prevent a violation of public trust.

Guard the privacy of stakeholder information.

Adhere to NYSTRS' Internal Asset Management Code of Professional Conduct in managing NYSTRS funds.

NYSTRS: A 30-Year Snapshot

Net Position
(in billions)

$25.0 — 1990 | 2020 — $120.5

NY STRS

Figures in billions for the 30-year period ending 6/30/2020.

$187.8

$126.8

$30.0

$4.5

| Member Contributions | Employer Contributions | Investment Income | Benefits Paid (plus expenses) |

Actuarial Highlights

NYSTRS' primary objective is to properly fund retirement and ancillary benefits so sufficient assets are accumulated in order to pay benefits as they come due. To ensure this happens, an actuarial valuation of the System's assets and liabilities is performed annually utilizing the Aggregate Cost Method, as specified by law. In this method, actuarial gains and losses are spread over the average future working lifetime of active members.

Benefits provided by the Retirement System are funded from three sources: investment income, member contributions and employer contributions.

For the 30-year period ended June 30, 2020, 84% of NYSTRS' income came from investment returns. Over that same period, 2% of income came from member contributions, which vary by tier and are fixed in statute as follows:

- Tier 1 and 2 members (those first entering the System before July 27, 1976) are not required to contribute.
- Tier 3 and 4 members (those first entering the System on or after July 27, 1976 and before January 1, 2010) contributed 3.0% of salary for the first 10 years of service or membership, whichever occurred first.
- Tier 5 members (those first entering the System on or after January 1, 2010 and before April 1, 2012) contribute 3.5% of salary each year throughout their active membership.
- Tier 6 members (those first entering the System on or after April 1, 2012) contribute between 3.0% and 6.0% of salary each year throughout their active membership in accordance with a schedule based upon salary earned.

Employers help fund pensions by contributing a percentage of compensation they pay to NYSTRS members. This percentage, known as the Employer Contribution Rate (ECR), is established annually in accordance with an actuarial valuation of System assets and liabilities. The ECR, which was in single digits for 22 years prior to the 2011-12 school year, accounted for about 14% of NYSTRS income between 1991 and 2020.

An ECR of 8.86% was applied to member payroll for the July 1, 2019 to June 30, 2020 school year. These funds were collected by NYSTRS in fall 2020. The ECR applied to member payroll for the July 1, 2020 to June 30, 2021 school year is 9.53%, payable in fall 2021.
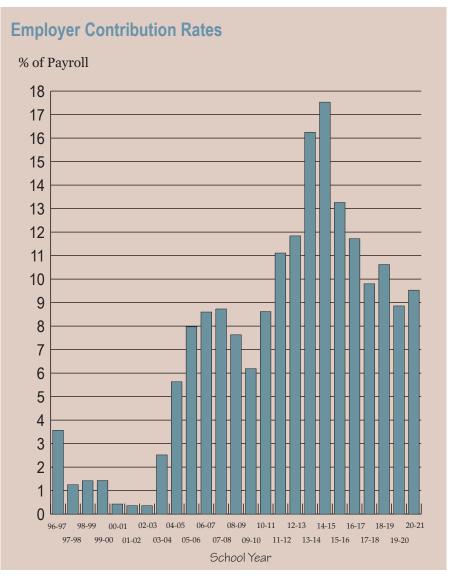
Our Strategic Objectives

Governance Structure: Promote a governance model to appropriately manage System finances and risk, and maintain a positive reputation.

Shared Accountability: Foster an environment of shared accountability, awareness, commitment and integrity.

Customer Service: Maintain a high level of customer service and confidence.

Safeguard System Funds: Safeguard System funds and invest them in a prudent and diversified manner in order to achieve optimum long-term returns with an appropriate level of risk.

Quality Workforce: Ensure a quality workforce.

Employer Contribution Rates

% of Payroll

School Year

The NYSTRS Retiree*

As of June 30, 2020, there were 163,904 retirees receiving a service retirement benefit from NYSTRS. Another 2,104 were receiving a disability benefit.

$43,316
Average Maximum annual benefit

79% Percent of benefits paid to New York State residents

28 years Average years of service at retirement

70% Female

*As of 6/30/20. Retirees receiving a service retirement benefit.
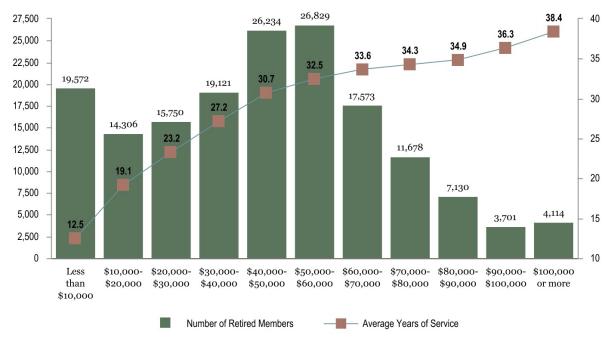
Statistical Highlights

Statistics provide historical perspective, context and detail. When considered together with the financial statements, a more complete picture of factors impacting NYSTRS' economic condition is revealed.

Retirees receiving a service retirement worked an average of nearly 28 years to earn their retirement benefit. Some additional statistical highlights:

- The average annual benefit for all service retirees is $43,316, representing about 54% of a member's final average salary at retirement.
- 45% of active members have 10 years or less of service.
- About 34% of active members are 39 years of age or younger, meaning it will be 16 years or more before they will be eligible to collect a retirement benefit — providing time to accumulate the additional assets needed to fund the benefit.
- 29% of NYSTRS members are Tier 6 — a figure that will grow as more members join. Because these members pay higher employee contributions than their predecessors, employer costs should decline over time.

For more robust statistical analysis, refer to NYSTRS' full Comprehensive Annual Financial Report (CAFR) at NYSTRS.org.

Distribution of the Annual Benefit* of All Retired Members — as of June 30, 2020

Legend: Number of Retired Members | Average Years of Service

Annual Benefit Range	Number of Retired Members	Average Years of Service
Less than $10,000	19,572	12.5
$10,000-$20,000	14,306	19.1
$20,000-$30,000	15,750	23.2
$30,000-$40,000	19,121	27.2
$40,000-$50,000	26,234	30.7
$50,000-$60,000	26,829	32.5
$60,000-$70,000	17,573	33.6
$70,000-$80,000	11,678	34.3
$80,000-$90,000	7,130	34.9
$90,000-$100,000	3,701	36.3
$100,000 or more	4,114	38.4

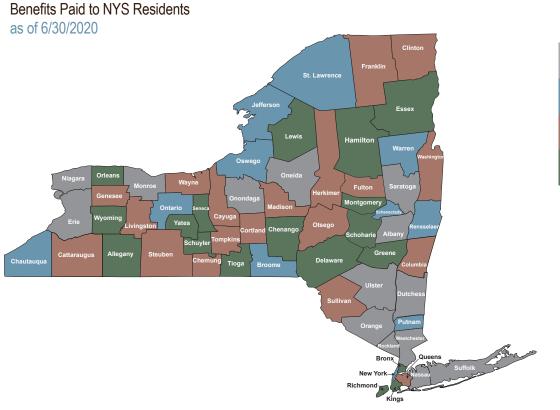*Maximum annual retirement benefit including supplementation and COLA.

An Economic Driver

During the fiscal year ended June 30, 2020, NYSTRS distributed approximately $7.5 billion in benefits, with approximately 80% of that total paid to New York State residents. The approximately $5.9 billion in System benefits paid to New Yorkers has a significant impact on state and local economies as shown in the chart below.
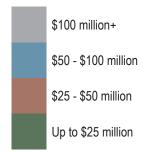
According to a May 2020 study by the National Conference on Public Employee Retirement Systems (NCPERS), New York state and local pension fund investments (including those by NYSTRS) and public retiree spending in 2018 (the year analyzed) contributed $136.9 billion to the economy and $55.4 billion to state and local government tax revenues.

In that same period, taxpayer contributions to all NYS public pensions totaled $17.7 billion. That means public pensions generated a net revenue of $37.7 billion for the state, the NCPERS study found.

For additional facts and figures about pensions, visit the Pension Education Toolkit at NYSTRS.org.

Benefits Paid by County

Benefits Paid to NYS Residents
as of 6/30/2020

Legend:
- $100 million+
- $50 - $100 million
- $25 - $50 million
- Up to $25 million

Annual Benefits Paid*
(In Billions)

In State:	$5.9
Out of State:	$1.5
Total:	**$7.4**

To see total payments and number of benefit recipients by county, visit About Us > Press Room at NYSTRS.org.

(Computed on the optional annual benefit including supplementation and COLA.)

*Annual benefits paid in this chart may differ from retirement benefit payments that appear elsewhere in this report because this chart reflects the rate of annual payment for retired members and their beneficiaries in pay as of the last day of the fiscal year.

Committed to Providing Educators
With a Secure Retirement Since 1921

NYSTRS

New York State Teachers' Retirement System
10 Corporate Woods Drive
Albany, New York 12211
NYSTRS.org

Mission: To provide our members with a secure pension.

Vision: To be <u>the</u> model for pension fund excellence and exceptional customer service.

Values: Integrity | Excellence | Respect | Resourcefulness
Diversity | Diligence | Balance