



2019 POPULAR ANNUAL FINANCIAL REPORT



New York State Teachers' Retirement System

As of June 30, 2019



A Message From the Executive Director & Chief Investment Officer

On behalf of our Board and staff, I am pleased to present this Popular Annual Financial Report (PAFR) of the New York State Teachers' Retirement System (NYSTRS) for the fiscal year ended June 30, 2019. This document summarizes the System's financial position for the 2019 fiscal year. For additional details, see our Comprehensive Annual Financial Report (CAFR) at NYSTRS.org.

A 10-member Board of Trustees representing various stakeholders governs the System. 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 decades, NYSTRS takes a prudent approach to asset management.

The System's year-end net assets totaled \$122.5 billion. During the same period, benefits paid to retirees and beneficiaries were approximately \$7.3 billion.

The plan's funded ratio as of June 30, 2018, the date of the most-recent annual actuarial valuation and calculated using the Actuarial Value of Assets, was 99.2%. The System's total portfolio returned 7.1% net of fees for the fiscal year ended June 30, 2019. Our 30-year rate of return is 8.8% net of fees.

NYSTRS' Board and staff are dedicated to fulfilling our mission of providing our members with a secure pension. Ensuring our members have the peace of mind that comes with knowing their pensions will continue for life drives us. We are proud to support the public school teachers and administrators who devote their lives to the next generation.

Respectfully,

Thomas K. Lee
Executive Director & Chief Investment Officer

Funding Sources 1989-2019

Investment Income	Employer & Employee Contributions
85%	15%



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.

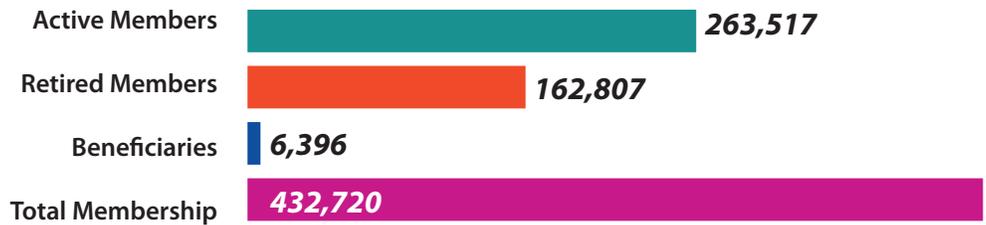
NYSTRS directs a defined benefit plan, with eligibility for benefits based on factors such as age, years of service and tier of membership. Eligible members receive a service retirement or disability pension; death benefits; the ability to borrow from member contributions; and, in some cases, coverage 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



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 more than 430,000 active and retired members, including beneficiaries. The System also serves 823 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, 2019 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.

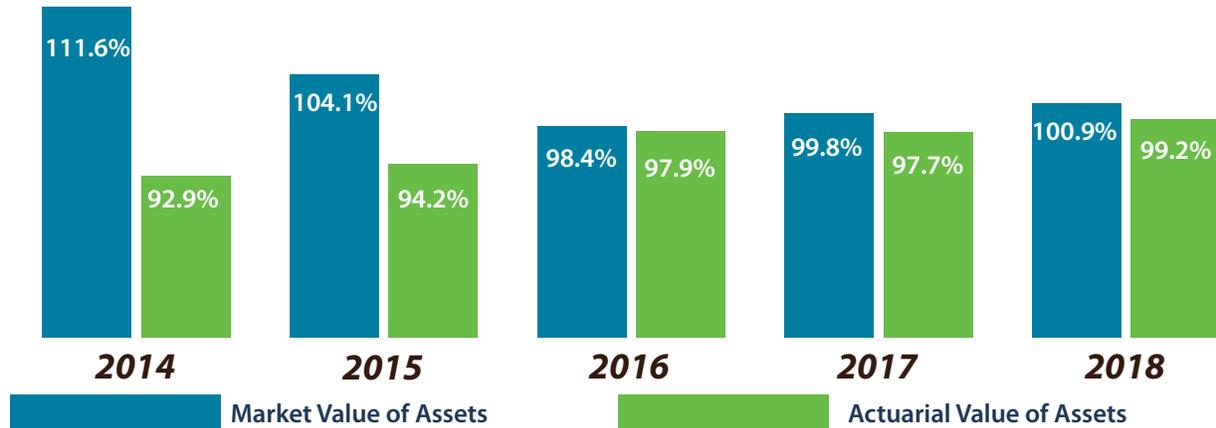
The information contained in this document came primarily from NYSTRS' Comprehensive Annual Financial Report, Fiscal Years Ended June 30, 2019 and 2018. A copy of that report is available at NYSTRS.org.

Financial Highlights

NYSTRS is one of the best-funded public pension plans in the nation. As of June 30, 2018, the most-recent calculation available, the System's funded ratio was 100.9% based on the market value of assets and 99.2% based on the actuarial value of assets. NYSTRS has made benefit payments on time and without fail throughout its nearly 100-year history.

Our total net position at fiscal year-end 2019 was valued at \$122.5 billion.

Funded Ratio*



* Calculated using the Entry Age Normal Cost Method

NYSTRS Ranks Tenth Among Largest Pension Funds

Of the top 1,000 pension funds, NYSTRS ranks 10th overall, according to trade publication *Pensions & Investments* (P&I). Both public and private retirement funds and plan sponsors were included in the rankings, which were based on total assets.

NYSTRS' defined benefit (DB) plan was positioned as the seventh-largest DB fund as well as number 8 among public funds in the P&I rankings.

Other financial highlights for the fiscal year ended June 30, 2019:

- The System paid out \$7.3 billion in benefits to members and beneficiaries.
- Contributions collected from employers totaled \$1.8 billion.
- System investments experienced appreciation of \$5.6 billion in 2019.

Net Position

Dollars in Billions



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 7.1% net of fees. It marked the 10th consecutive year the System posted a positive return, with returns in six of those years exceeding the System's assumed rate of return.

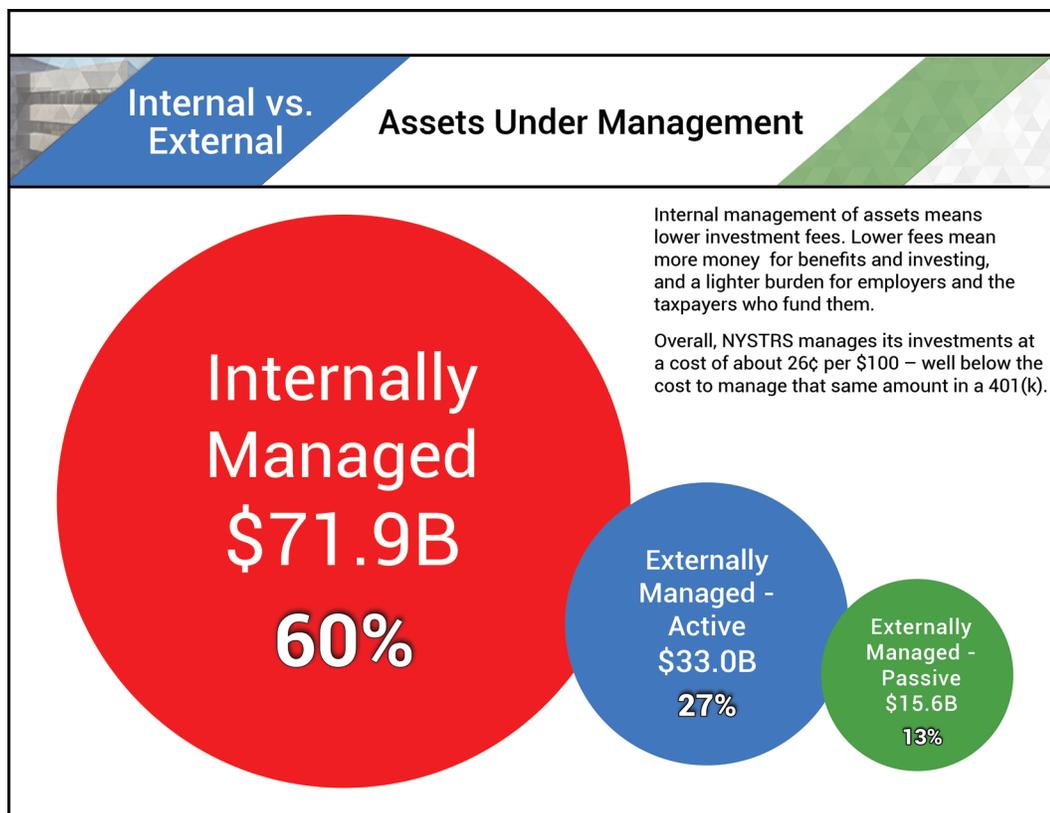
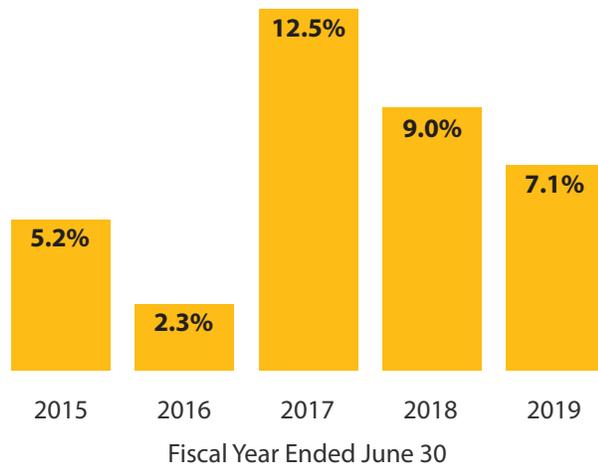
Other highlights include:

- Over the past 30 years, net assets have grown by \$99 billion.
- NYSTRS' 25-year annualized net rate of return is 8.7% and our 30-year rate of return is 8.8%.
- Over the past 30 years, 85% 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)	
5-Year	7.2%
10-Year	10.4%
15-Year	7.5%
20-Year	6.3%
25-Year	8.7%
30-Year	8.8%

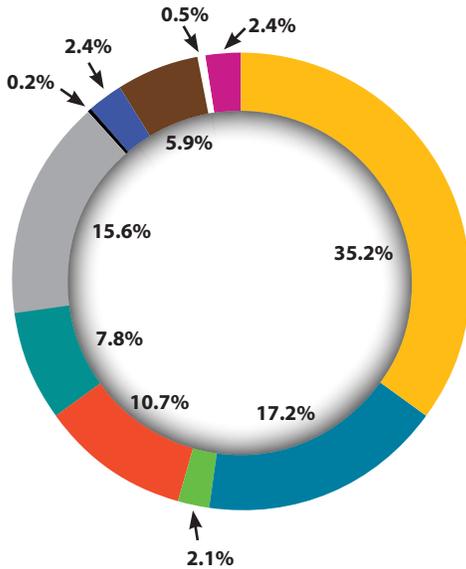
* As of 6/30/19

Investment Performance (Net of Fees)



Asset Allocation

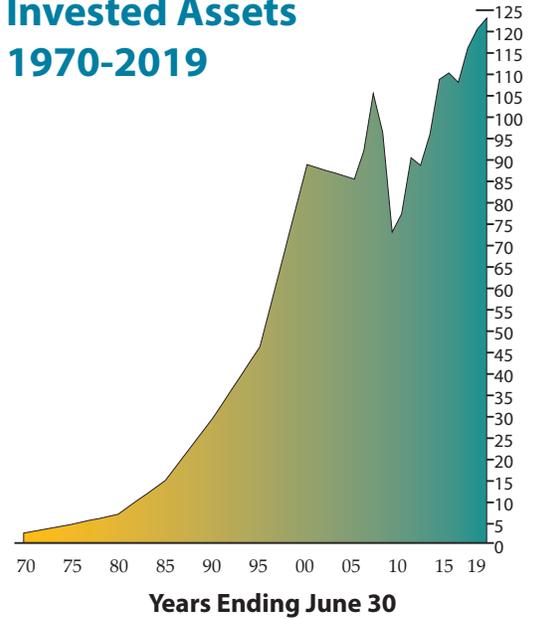
The most significant contributor to a fund's long-term investment performance is asset allocation. The allocation process helps control risk and ensures the overall portfolio is broadly diversified. NYSTRS' Board, with the assistance of an external consultant, reviews the asset allocation policy on an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



As of June 30, 2019

Domestic Equity	35.2%
International Equity	17.2%
Global Equity	2.1%
Real Estate Equity	10.7%
Private Equity	7.8%
Domestic Fixed Income	15.6%
High Yield Bonds	0.2%
Global Bonds	2.4%
Real Estate Debt	5.9%
Private Debt	0.5%
Cash Equivalents	2.4%

Growth of Invested Assets 1970-2019



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.

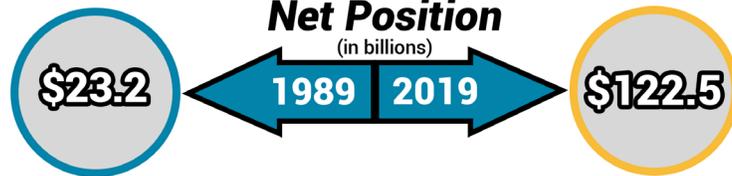
Protect the interest of stakeholders, including members, employers and the public.

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

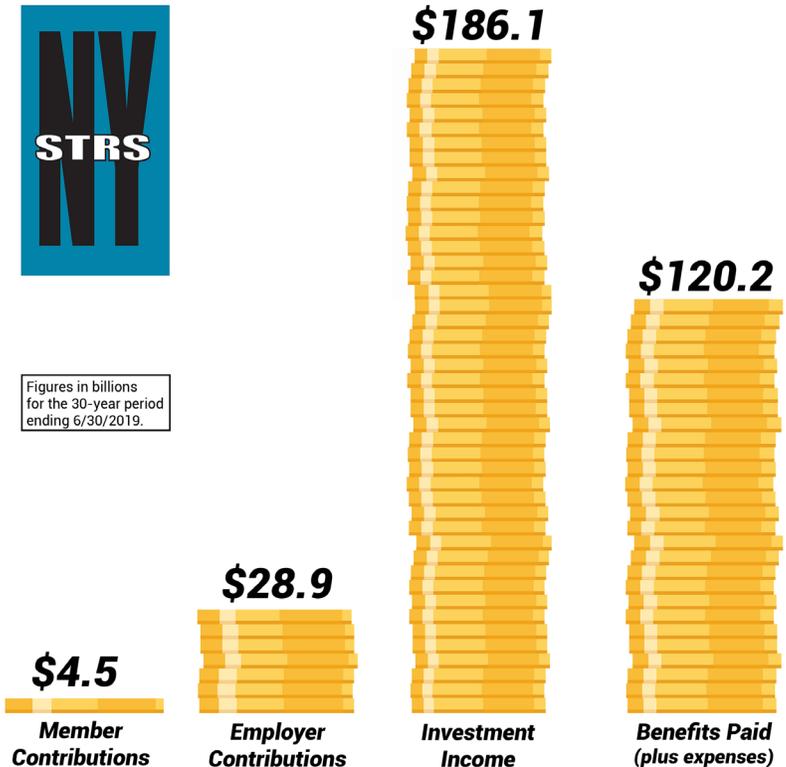
Guard the privacy of stakeholder information.

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

NYSTRS: A 30-Year Snapshot



Figures in billions for the 30-year period ending 6/30/2019.



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.

Investment income varies from year to year, but for the 30-year period ended June 30, 2019, 85% of NYSTRS' income came from investment returns.

Over that same time period, 2% of System income came from member contributions. The contribution rate varies by tier and is fixed in statute as follows.

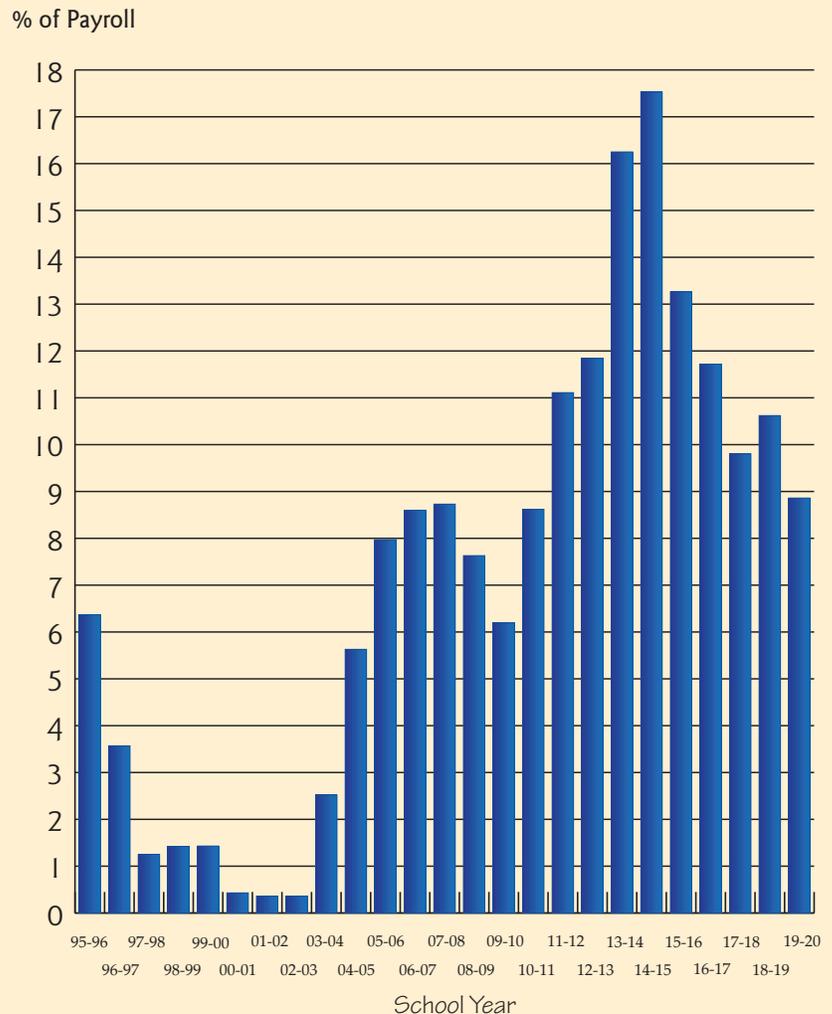
- Tier 1 and 2 members (those first entering the System before July 27, 1976) are not required to contribute.
- Tier 3 and 4 members (those first entering the System on or after July 27, 1976 and before January 1, 2010) contribute 3.0% of salary for the first 10 years of service or membership, whichever occurs 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 for their entire careers.
- 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 depending on the amount of salary.



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 2011-12, accounted for about 13% of NYSTRS income between 1989 and 2019.

An ECR of 10.62% was applied to member payroll for the July 1, 2018 to June 30, 2019 school year. These funds were collected by NYSTRS in fall 2019. The ECR applied to member payroll for the July 1, 2019 to June 30, 2020 school year is 8.86%, payable in fall 2020.

Employer Contribution Rates



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.

The NYSTRS Retiree*

As of June 30, 2019, there were 160,772 retirees receiving a service retirement benefit from NYSTRS. Another 2,035 were receiving a disability benefit.

**73 years,
2 months**
Average age
at 6/30/19

\$42,700
Average Maximum
annual benefit

80%
Percent of benefits
paid to New York
State residents

69%
Female

**28
years**
Average years
of service at
retirement

*As of 6/30/19. Retirees receiving a service retirement benefit.

Statistical Highlights

Statistics provide historical perspective, context and detail. When considered alongside financial statements, an accurate assessment of NYSTRS' economic condition is revealed.

Statistically, more than half (53%) of those receiving a NYSTRS retirement benefit worked 30 years or more to earn it. About one-third (30%) of our retired members receive \$30,000 or less per year.

Six-figure pensions make headlines, but only 2% of those receiving a NYSTRS pension earn \$100,000 or more — and those that do worked an average of almost 40 years to qualify.

Some additional statistical highlights:

- The average annual benefit for all service retirees is \$42,700, representing about 54% of a member's final average salary at retirement.
- 45% of active members have 10 years or less of service.
- About 35% 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.
- 26% 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, 2019



*Maximum annual retirement benefit including supplementation and COLA.

An Economic Driver

During the fiscal year ended June 30, 2019, NYSTRS distributed \$7.3 billion in benefits, with approximately 80% of that total paid to New York State residents. The more than \$5.7 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 the National Institute on Retirement Security (NIRS), expenditures in 2016 stemming from New York's state and local pensions (of which NYSTRS is a part) supported:

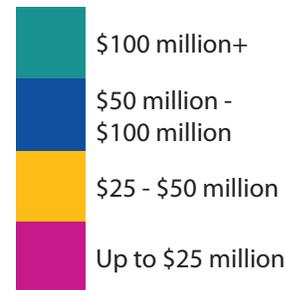
- More than 251,500 jobs that paid some \$15.7 billion in wages and salaries.
- \$9.6 billion in federal, state and local tax revenues.
- \$42.8 billion in total economic output.

NIRS estimates that in New York each dollar paid in pension benefits generates about \$1.43 in total economic output. As benefit recipients spend their pensions in local communities, one person's spending becomes another's income.

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 6/30/2019



Annual Benefits Paid * (In Billions)

In State:	\$5.7
Out of State:	\$1.5
Total:	\$7.2

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 the model for pension fund excellence and exceptional customer service.

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