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, 2016. This document summarizes the System’s financial position for the 2015 and 2016 fiscal years. For additional details, see our Comprehensive Annual Financial Report (CAFR) at NYSTRS.org.

A 10-member Board 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.

The Retirement System is one of the 10 largest in the country. System income is generated from three sources: Employer contributions, member contributions and investment income. The vast majority of NYSTRS income — 84% for the 20-year period ended June 30, 2016 — comes from investment returns. The System’s net position at fiscal year-end was $107.5 billion.

NYSTRS is among the best-funded public retirement systems. This is a testament to New York’s pension funding framework. NYSTRS has received required employer and employee contributions throughout our nearly 100-year history. As a result, the necessary assets have always been available for investing and growing the fund.

NYSTRS is a long-term investor. Our Board and staff manage a diversified, risk-controlled portfolio that supplies the funds for member pensions both now and in the future. Additionally, because of the broad diversification of assets, we are able to withstand short-term market fluctuations without impacting the plan’s long-term health.

We proudly operate in an environment of transparency and adhere to strong ethical values. Most importantly, we never lose sight of our fiduciary responsibilities. We also take great pride in the cost effectiveness of our plan. Over the past five years, the cost to manage the plan has averaged 24 cents per $100 managed — well below the 60 cents or more it costs to manage the same $100 in 401(k) plans.

NYSTRS’ total fund return for the fiscal year was 2.3% net of fees, marking the seventh consecutive year of positive returns for the System. Our 30-year rate of return is 8.9%, exceeding our annual assumed rate of return of 7.5%.

Professionally managed, well-funded defined benefit plans have proven to be the most efficient and cost-effective way of providing steady, secure income for retirees. NYSTRS models pension fund excellence thanks to the tremendous individuals who work on behalf of our nearly half-a-million members and take to heart our primary mission of providing members with a secure pension.

Respectfully,

Thomas K. Lee
Executive Director & Chief Investment Officer
Who We Are

The New York State Teachers’ Retirement System (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, including 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 the recipient 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

<table>
<thead>
<tr>
<th>Category</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Members</td>
<td>266,350</td>
</tr>
<tr>
<td>Retired Members</td>
<td>155,163</td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>5,985</td>
</tr>
<tr>
<td>Total Membership</td>
<td>427,498</td>
</tr>
</tbody>
</table>

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), BOCES or charter schools that opted 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 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 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 427,000 active and retired members, including beneficiaries. The System also serves 821 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, 2016 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 for the fiscal years ended June 30, 2016 and 2015. A copy of that report is available at NYSTRS.org.
NYSTRS is one of the best-funded public pension plans in the nation. As of June 30, 2015, the most-recent calculation available, the System’s funded ratio was 104.1% based on market value of assets and 94.2% based on actuarial value of assets. The latter exceeds the national average by 20%.

Our total net position at fiscal year-end 2016 was valued at $107.5 billion.

Of the top 1,000 pension funds, NYSTRS ranks ninth 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 No. 7 among public funds in the P&I rankings.

Other financial highlights for the fiscal year ended June 30, 2016:

- The System paid out $6.7 billion in benefits to members.
- Contributions collected from employers totaled $2.0 billion, down from $2.6 billion the previous year.
- System investments experienced appreciation of $258 million in 2016.
- Over the past 20 years, NYSTRS has paid out $88.2 billion in benefits while collecting $22.7 billion in member and employer contributions. During the same period, the System’s net assets have grown from $55 billion to $107.5 billion.

* Calculated using the Entry Age Normal Cost Method

Funded Ratio*
**Investment Highlights**

System assets are broadly diversified among eight primary asset classes: domestic equity, international equity, domestic fixed income, real estate, mortgages, private equity, cash equivalents, and global bonds.

NYSTRS’ total fund return for the fiscal year was 2.3% net of fees. It marked the seventh consecutive year of positive returns for NYSTRS. In four of those seven years returns were in double digits, with the five-year rate of return standing at 8.3%.

Other highlights include:
- Over the past three years, investments have appreciated by $18.2 billion.
- NYSTRS’ 20-year annualized net rate of return is 7.6% and our 30-year rate of return is 8.9%.
- Over the past 20 years, 84% of NYSTRS’ income was generated by investment returns.
- NYSTRS administers its defined benefit plan cost effectively. Its investments fees average 24¢ per $100 managed, compared to 60¢ or more in fees associated with 401(k) plans.
- Approximately 63% of assets are managed internally. Managing assets internally keeps administrative costs down, which in turn leaves more money for paying benefits and future investments.

**Investment Performance (Net of Fees)**

Ten Largest Equity Holdings as of June 30, 2016

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Cost</th>
<th>Market Value</th>
<th>Percent of Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Apple</td>
<td>$88,729,973</td>
<td>$1,041,021,100</td>
<td>2.0%</td>
</tr>
<tr>
<td>2</td>
<td>Alphabet Inc.</td>
<td>295,377,146</td>
<td>820,606,745</td>
<td>1.6%</td>
</tr>
<tr>
<td>3</td>
<td>Microsoft Corp.</td>
<td>312,326,640</td>
<td>806,944,202</td>
<td>1.5%</td>
</tr>
<tr>
<td>4</td>
<td>Exxon Mobil Corp.</td>
<td>142,353,681</td>
<td>778,033,374</td>
<td>1.5%</td>
</tr>
<tr>
<td>5</td>
<td>Johnson &amp; Johnson</td>
<td>117,984,087</td>
<td>661,977,395</td>
<td>1.3%</td>
</tr>
<tr>
<td>6</td>
<td>General Electric</td>
<td>162,032,483</td>
<td>570,218,305</td>
<td>1.1%</td>
</tr>
<tr>
<td>7</td>
<td>Amazon.com Inc.</td>
<td>67,876,343</td>
<td>547,253,478</td>
<td>1.0%</td>
</tr>
<tr>
<td>8</td>
<td>Berkshire Hathaway Inc.</td>
<td>290,131,127</td>
<td>531,116,401</td>
<td>1.0%</td>
</tr>
<tr>
<td>9</td>
<td>Facebook Inc.</td>
<td>289,802,778</td>
<td>521,213,594</td>
<td>1.0%</td>
</tr>
<tr>
<td>10</td>
<td>AT&amp;T Inc.</td>
<td>156,170,079</td>
<td>519,631,162</td>
<td>1.0%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>$1,922,784,337</strong></td>
<td><strong>$6,798,015,756</strong></td>
<td><strong>13.0%</strong></td>
</tr>
</tbody>
</table>

*A complete list of the System’s holdings is available at NYSTRS.org (see “Investments” under the heading “About Us”) or through the Public Information Office.*
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.

Asset Allocation

As of June 30, 2016

- Domestic Equity: 38.8%
- Fixed Income: 15.8%
- Private Equity: 7.6%
- Real Estate: 11.1%
- Global Bonds: 1.9%
- Mortgages: 5.8%
- Cash: 2.2%
- International Equity: 16.8%

Growth of Invested Assets 1970-2016


- Member Contributions: $3.0 billion
- Employer Contributions: $19.7 billion
- Investment Income: $118.4 billion
- Benefits Paid: $88.2 billion

Net Position (in billions)

1996 - $55.0
2016 - $107.5
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 14% of NYSTRS income between 1996 and 2016.

An ECR of 13.26% was applied to member payroll for the July 1, 2015 to June 30, 2016 school year. These funds were collected by NYSTRS in fall 2016. The ECR applied to member payroll for the July 1, 2016 to June 30, 2017 school year is 11.72%, payable in fall 2017. This represents a decrease of approximately 12% from the previous year’s ECR. The ECR has declined in each of the past two years.

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 20-year period ended June 30, 2016, 84% 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.

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.

Employer Contribution Rates

% of Payroll

![Employer Contribution Rates Graph]
The NYSTRS Retiree

As of June 30, 2016, there were 153,107 retirees receiving a service retirement benefit from NYSTRS. Another 2,056 were receiving a disability benefit. What does the typical NYSTRS service retiree* look like?

- **28 years, 2 months** Average years of service at retirement
- **$41,192** Average maximum annual benefit
- **72 years** Average age at 6/30/16
- **67%** Female

**Statistical Highlights**

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

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

More than half (55%) of those receiving a NYSTRS retirement benefit worked 31 years or more to earn it. About one-third of our retired members receive $30,000 or less per year.

Six-figure pensions make headlines, but less than 2.0% 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 $41,192, representing about 55% of a member’s final average salary at retirement.
- 49% of active members have 10 years or less of service.
- About 40% 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.
- 14% 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.

**Distribution of the Annual Benefit* of All Retired Members — as of June 30, 2016**

*Maximum annual retirement benefit including supplementation and COLA.
An Economic Driver

During the fiscal year ended June 30, 2016, NYSTRS distributed about $6.6 billion in benefits, with 80% of that total paid to New York State residents. The more than $5 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 2014 stemming from New York’s state and local pensions (of which NYSTRS is a part) supported:

- More than 215,000 jobs that paid some $12.5 billion in wages and salaries;
- $8.1 billion in federal, state and local tax revenues; and,
- $35.2 billion in total economic output.

NIRS estimates that in New York each dollar paid in pension benefits generates about $1.30 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
7/1/2015 - 6/30/2016

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