New York State Comptroller
THOMAS P. DiNAPOLI

Enterprise Fraud, Waste and Abuse Prevention and Detection

Using Data Analytics to Strengthen Oversight

Annual Report to the New York State Legislature

September 1, 2025

Introduction

The New York State Legislature amended the State Finance Law in 2015 by adding a new Section 8-c providing for the establishment of a statewide electronic system to help detect and prevent fraud, waste and abuse in government spending and to help avoid improper payment of public funds. Section 8-c affirms the State Comptroller's role in protecting the public's money and requires cooperation by State agencies and State public authorities in this effort.

The Office of the New York State Comptroller (OSC) continues to make progress in several areas toward identifying and applying data analytics to enhance efforts to recognize and prevent fraud, waste and abuse. By evaluating innovative methods and technologies, and adopting those that prove effective, OSC constantly refines and improves its systems for protecting the public's money.

Identifying Waste, Fraud, and Abuse

Data analytics remains at the core of OSC's oversight activity and internal risk management efforts. Analytics tools and methods are integral to the agency's audits of State and local governments. They also help OSC monitor and improve the State's payroll, procurement, retirement and other systems to increase efficiency and prevent improper payments. Below are examples of OSC work over the past year that leveraged analytical techniques.

Audits Identified Improper Medicaid and New York State Health Insurance Program Payments

Using complex data analytics in OSC audits, approximately $17.2 billion in improper Medicaid payments and questionable transactions were identified for the 12 months ending May 31, 2025.

Examples of improper payments

- Personal care and home health care services that were not supported by required electronic visit verification records;
- Payments to providers who were not enrolled in Medicaid;
- Coordination of benefit issues when beneficiaries had third-party health insurance that should have paid claims; and
- Hospitals overbilling for outpatient care that was billed as more expensive inpatient care.

Similarly, auditors used data analytics to identify $9.3 million in improper payments in the New York State Health Insurance Program.

**Payment Voucher and Employee Expense Payment Audits**

To ensure State payments are appropriate, accurate and comply with applicable laws, regulations and policies; OSC has developed multiple tools to conduct more rapid, systematic analyses of: (i) payment vouchers (see Figure 1), and (ii) employee expense payments (see Figure 2).

Using known risk indicators – such as contracts let without OSC pre-audit oversight, employees not complying with the OSC Travel Manual and agencies not following procurement guidelines – these tools provide visualizations that help auditors more easily identify transactions with the highest risks for fraud, waste or impropriety.

During the period from July 1, 2024 through June 30, 2025, auditors using these tools prevented inappropriate funds from being disbursed and identified compliance issues. These findings, totaling more than $10 million, included vendors not complying with contract terms, vendors calculating invoice amounts incorrectly, payments using funds that had lapsed, and employees exceeding federal meal and lodging per diem rates. Using data analytics, auditors also identified more than $11.6 million in prevented or recovered duplicate payments and nearly $400,000 in payments that did not comply with processing requirements.
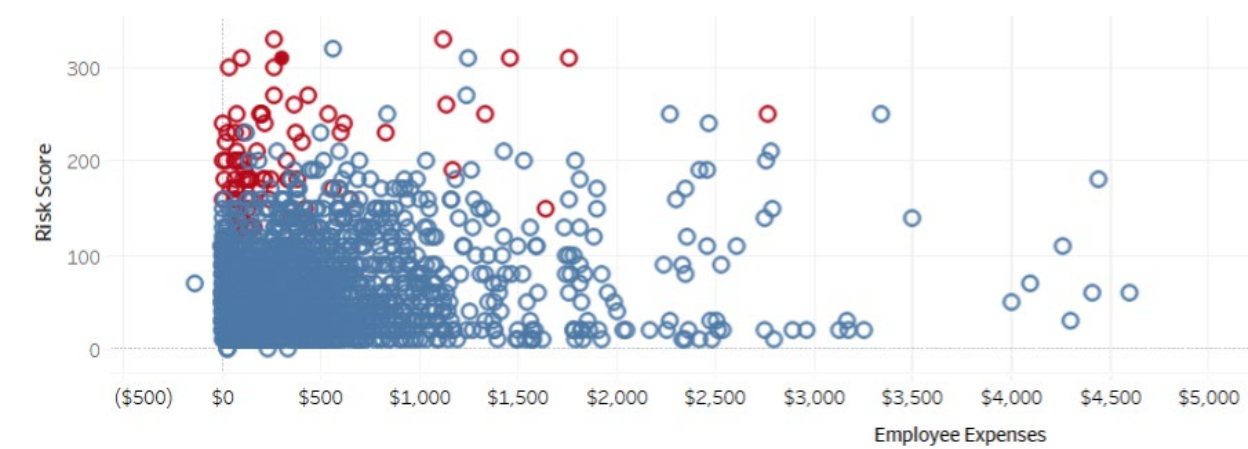
Figure 1

Pending Vouchers by Gross Amount and Risk Score
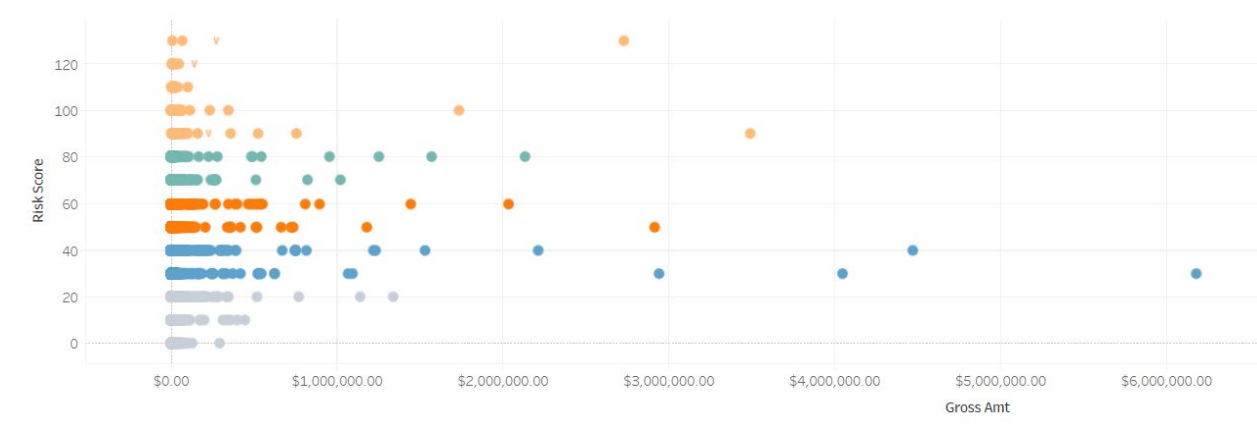
The pending vouchers are grouped by dollar amount and risk score. The points at the top of the chart represent the vouchers considered to have the highest risk.

Figure 2

Pending Travel and Expense Reports by Amount and Risk Score

Red indicates a higher risk of overpayment. A solid point indicates the transaction was previously audited and is being resubmitted.

Monitoring Transactions to Ensure Legitimacy

To prevent fraud against New York State and Local Retirement System participants, OSC conducts daily and project-based reviews using data analytics that identify participants' transactions deemed to be at high risk for fraud.

Once fraudulent online accounts have been confirmed in the daily queries, OSC takes additional data analytics steps to flag other transactions with similar characteristics that may be potentially fraudulent. Through this process, OSC has prevented fraudulent loan transactions, withdrawal payments, and changes in direct deposits.

Further, OSC examiners are prompted to conduct reviews of transactions to check for fraud when certain conditions are met. If their review reveals a risk of fraud, they flag the transaction, requiring the member to authenticate it before the payment is processed. For example, certain changes trigger NYSLRS account notifications. NYSLRS participants can report that they did not request the changes.

Unclaimed Funds Claim Payment Audit Tools

Each business day, the New York State Comptroller's Office of Unclaimed Funds (OUF) processes an average of 1,700 claims totaling $2 million in payments. Last year, OSC returned $633 million to rightful owners. Claimants can initiate claims in a paperless format through online applications, where over 85 percent of claims are submitted. Fast-tracked online claims must be reviewed within a short window of time to ensure the payment is made to the entitled owner. The data analytics tools improve the auditing process by identifying risky claims.

In State Fiscal Year 2024-2025, 19,101 claims totaling $57.9 million were reviewed. Of the 19,101 claims reviewed, 195 payments totaling $119,200.35 were stopped because the claim did not appear to be made by the entitled owner. Many of the 195 claims were flagged with several risk factors. These reviews, combined with strong internal controls, help to identify and prevent fraudulent payments. The data visualization below identifies risky claims prior to completing the payment process.

Figure 3

Risky Unclaimed Funds Claims Reviewed SFY 2024-25
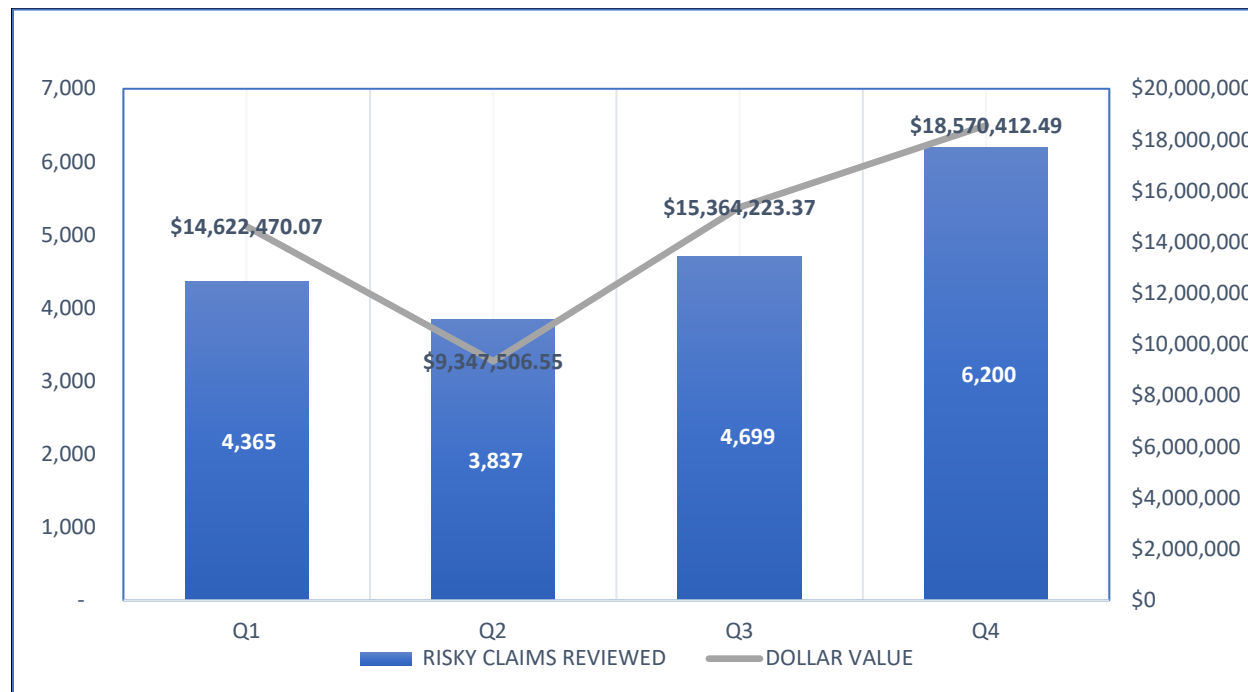
Misappropriation of Local Government Funds

OSC uses analytic tools to identify instances where local government officials misappropriate local government funds. Examples include:

- An audit of the Morley Volunteer Fire Company determined that the former Treasurer misappropriated Company funds from January 2016 through December 2019. Data visualizations were prepared to support the auditor's work and make audit data meaningful and engaging for both internal and external audiences. This work supported the findings that the former Treasurer was able to obtain cash by making inappropriate automated teller machine (ATM) and in-bank withdrawals, writing unauthorized checks to herself and receiving cash from Company funds presented for deposit. She also made 178 personal purchases using a Company debit card. (Morley Volunteer Fire Company – Misappropriation of Funds, 2023M-154.)

- An audit of the Town of Poestenkill determined that the former Administrative Assistant (Assistant) used the Town's credit card to make inappropriate personal purchases including, but not limited to, household and personal care items, video streaming services and clothing using Town resources. Based on the findings, an investigation was started. The Assistant was arrested in March 2023 and pleaded guilty to a Class A misdemeanor for petit larceny in February 2024. She paid restitution, which included additional amounts uncovered during the investigation. Data analytics were used to examine electronic credit card payment dates to determine whether the payments were made with Town funds and whether credit card claims were paid prior to audit. (Town of Poestenkill – Credit Card Purchases, 2024M-34)

Using Analytics to Improve Program Effectiveness

OSC audits often identify opportunities to improve data collection and use a broader range of data sources and analytical approaches to identify ways for agencies to better manage their programs and operations. Below are some examples from the past year:

Department of Health (DOH): Maternal Health (2022-S-25)

A key indicator of the overall health of a population is its occurrence of maternal mortality and morbidity—both of which have been steadily increasing nationally as well as in New York State. Despite efforts since 2010 to improve maternal health statewide, maternal mortality and morbidity rates in New York State have not decreased since 2018, with New York reporting a 2020 average of 19.3 deaths per 100,000 live births. These deaths are significant not only because, in most cases, the causes are preventable and treatable but also for the persistent racial and ethnic disparities that exist, with Black women dying at a rate almost five times that for White women. In April 2018, New York State launched a multi-pronged effort to reduce maternal mortality and racial disparities, starting with a Taskforce on Maternal Mortality and Disparate Racial Outcomes to identify strategies for changing the landscape of maternal mortality. New York State's initiative resulted in a total of 28 recommendations.

Using data from the CDC and DOH and benchmarking multi-year mortality trends against national averages, auditors showed that maternal mortality and morbidity rates in New York State have not decreased, and the maternal mortality rate has increased, along with increasing racial disparities. Overall, the audit concluded that DOH needs to do more to ensure that maternal mortality and mortality rates decline. For example, DOH does not evaluate all of its maternal health programs to effectively measure whether its efforts are improving maternal health. DOH also does not collect severe morbidity data and has no analytic strategy to evaluate it, limiting its ability to effectuate

change. Lastly, DOH conducted limited outreach with other agencies and private sector partners to understand their lack of participation in DOH maternal health programs. More robust outreach will likely increase participation in these programs and positively affect mortality and morbidity rates.

Division of Human Rights (DHR): Investigation of Housing Discrimination Complaints (2023-S-26)

Housing discrimination occurs when sellers, owners, landlords, real estate brokers, and/or agents refuse to sell or negotiate for the sale, lease, or rent of housing accommodations based on protected classes. DHR enforces the New York State Human Rights Law (Law), which prohibits discrimination in housing based on age, race, lawful source of income, national origin, gender identity, sex, sexual orientation, marital status, disability, military status, and other protected classes.

Auditors analyzed DHR's data on complaint filings to support their findings of weaknesses within DHR's processes related to late intakes, processing delays, inconsistent outcomes and improper prioritization of cases; and to identify issues with completeness and reliability of complaint data. Auditors also used data visualization software to create a map showing housing complaints filed with DHR by county. This audit was a 2025 winner of a National State Auditors Association's (NSAA) Excellence in Accountability Award which are given to recognize outstanding performance audits, forensic reports, and special projects performed by NSAA offices.

State Education Department (SED): Access to Preschool Special Education (2023-S-1)

Providing special educational programs and services at an early age helps prepare children with disabilities to enter school ready to learn. SED oversees preschool education (ages 3-5), which may include speech pathology and language therapy, occupational therapy, physical therapy, specialized instruction, parent training, and counseling.

The audit, which covered the period from July 2018 through January 2024, identified that preschool special education students may not be receiving all required services in a timely manner or, in some cases, not at all due in large part to a lack of providers. For example, despite the requirement of no delay in implementing students' Individualized Education Program, over 83 percent of school districts (455 of 550) that submitted responses to a survey conducted as part of the audit reported they maintain waitlists for services, and an additional 53 percent of school districts visited (21 of 40) maintain waitlists. Furthermore, SED was unable to adequately ensure that all preschool special education students had access to their recommended services, as SED was unaware of the current number of students enrolled in preschool special education programs, what services those students were receiving in real time, or how many school districts maintain waitlists for services. Lastly, discrepancies among SED's various data systems and sources resulted in unreliable information regarding services provided, and lack of

analysis of the information SED did have limited its ability to monitor when school districts were having issues (e.g., unserved students or untimely evaluations) due to a lack of providers.

Auditors analyzed several data sets, including SED special education contact data, school district survey results, and school district meeting results as part of the audit and used data visualization software to create a map of special education provider shortages.

Figure 4

School Districts' Reporting of Provider Shortages
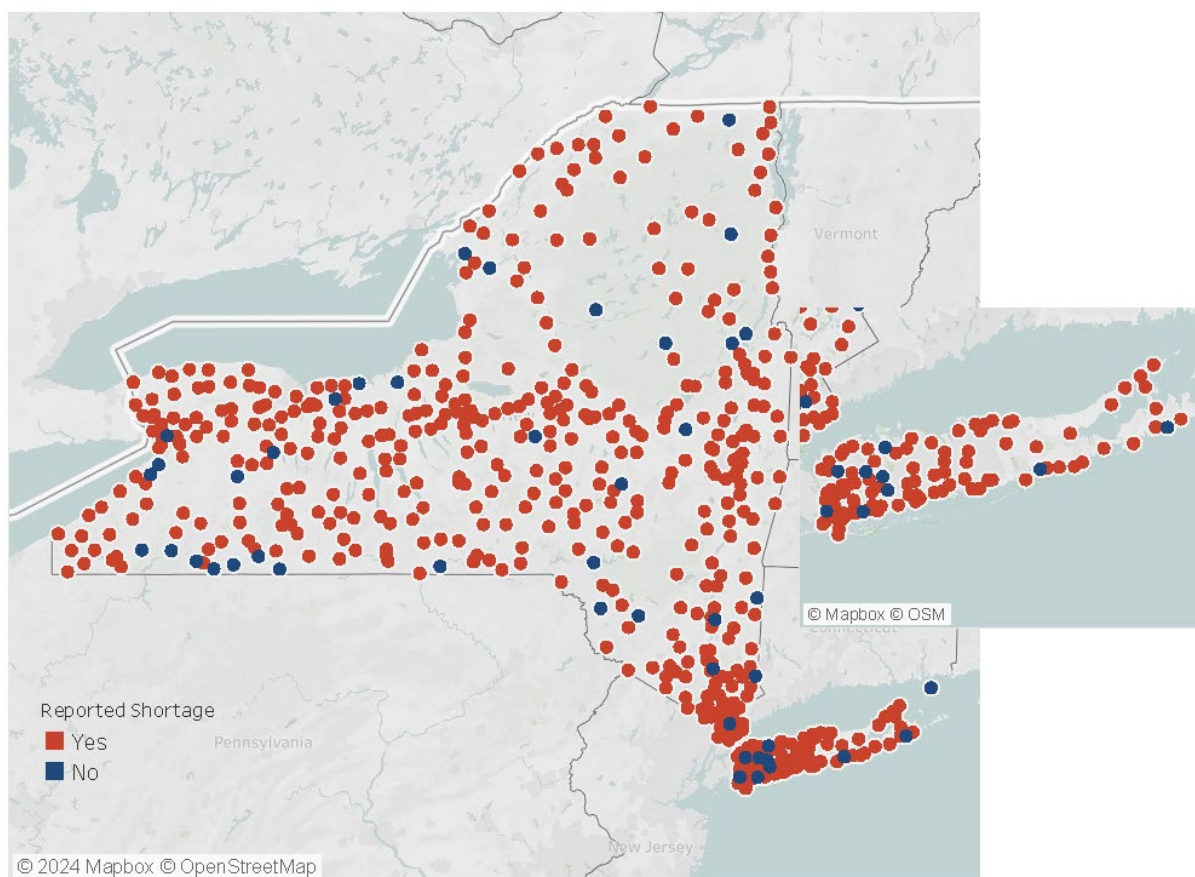
Office of Children and Family Services (OCFS): Child Care Stabilization Grants (2022-S-44)

Child care is essential for communities to thrive, but according to the New York State Child Care Availability Task Force, the child care system's structure means many families cannot access or afford high-quality care and the workforce is largely underpaid for skilled and valuable work. In response to the urgent need for child care, especially during the COVID-19 pandemic, the American Rescue Plan Act (ARPA) included approximately $24 billion for child care stabilization grants. OCFS administers several

child care grant programs, receiving $1.8 billion from ARPA used to fund child care stabilization grant programs.

The audit identified weaknesses in OCFS' oversight of grant expenses, including a reliance on provider attestations and expense report claims to support grant payments rather than reviewing support for claimed expenses. As a result, of $2.6 million in expenses reviewed, over $373,000 in expenses were either inadequately supported or not supported at all, including funds used for bonuses, retirement contributions, and tuition reimbursement.

As part of the audit, auditors analyzed child care capacity and provider data (for those receiving stabilization grants) and used data visualization software to create an interactive map showing child care capacity changes and stabilization grant dollars by OCFS region and county.

Interactive map link: 2022-S-44 Interactive Map

Promoting Accountability & Efficiency

OSC and other State agencies continue to make extensive data available to the public. This can help external stakeholders to monitor the use of public money and hold public officials accountable for carrying out their duties effectively, help identify areas of risk, and prevent waste, fraud and abuse. However, the data is not always easy to use. To make public data more user friendly for a broader range of stakeholders, OSC has been developing interactive web-based tools that allow members of the public to filter and view data interactively.

Technological advances can also make data analysis easier, faster and accessible to more people, as well as promote agency efficiency and effectiveness. Interactive data visualizations allow State and local officials, managers and other decision-makers to quickly review data from multiple sources to monitor trends, identify outliers, assess risks and respond as needed to prevent waste and abuse, identify potential fraud, improve performance and explain results to residents and stakeholders.

Greater Transparency on State Agency and Public Authority Contracts

Over the past eight years, New York State has been in various declared State of Emergencies due to weather, health and public safety. The Executive Orders associated with these emergencies have typically exempted certain provisions of law including the Comptroller's oversight role of state agency contracts. In addition to emergency Executive Orders, enacted state budgets have included appropriations that are exempted from the Comptroller's oversight. Exempting the Comptroller's oversight through executive orders and budget language results in billions of dollars being spent without the oversight and transparency provided by the Comptroller's review. The Contract by the Numbers dashboard

allows users to filter and sort contracts that were not reviewed by the Comptroller's office, allowing taxpayers to gain some level of insight and transparency into these contracts and learn how and where money is being spent.

Figure 5

Contracts by the Numbers

Interactive dashboard link https://www.osc.ny.gov/state-agencies/contracts/by-the-numbers
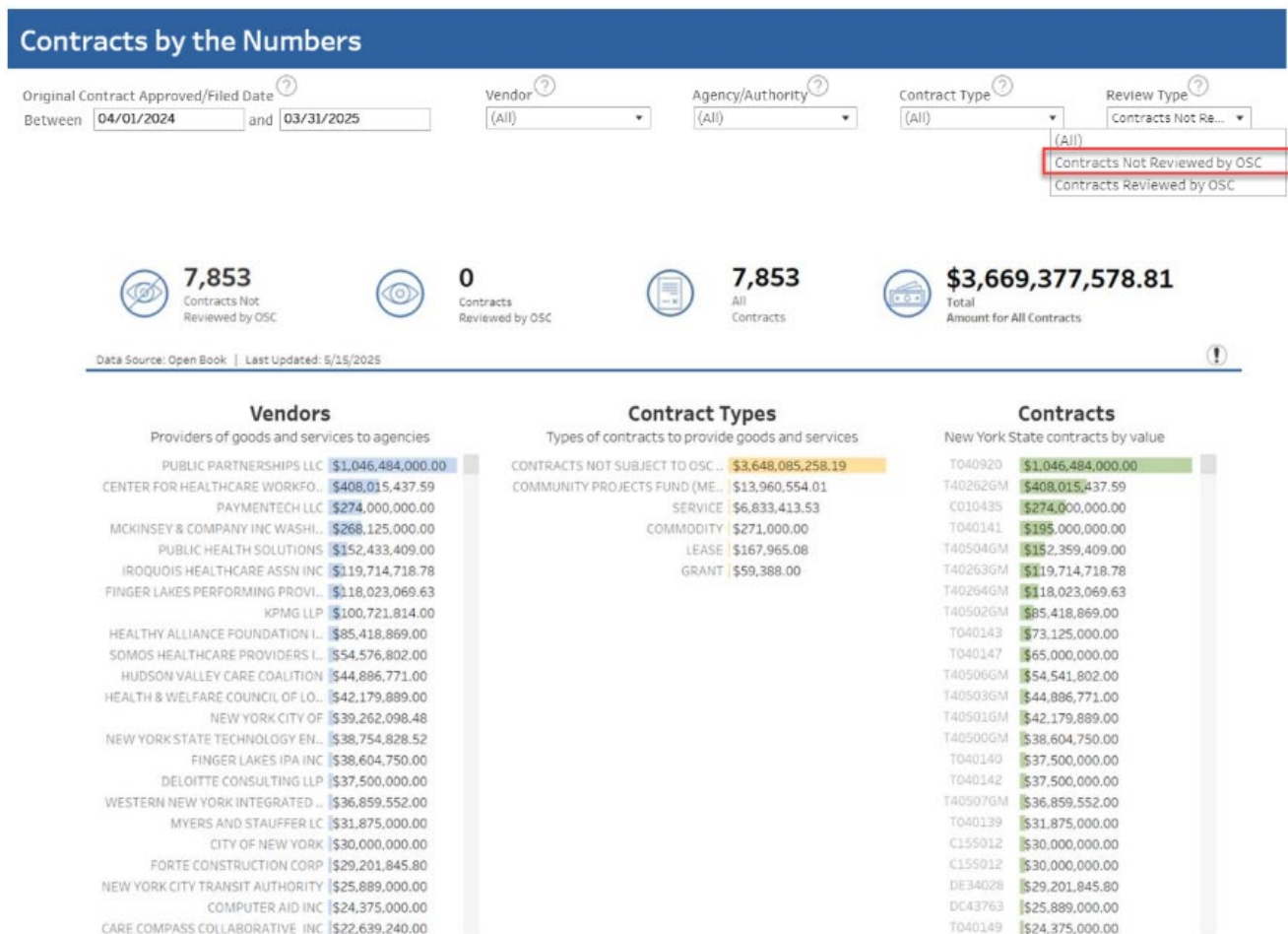
Identifying Deceased Members

OSC utilizes various tools to identify deceased benefit recipients in order to prevent the New York State and Local Retirement System (NYSLRS) from issuing inappropriate monthly retirement benefit payments. Continual enhancements and refinements allow deceased members to be identified more efficiently, promoting program and operational effectiveness. During calendar year 2024, NYSLRS identified the deaths of monthly retirement benefit recipients and recovered $3.5 million in overpaid pension benefits.

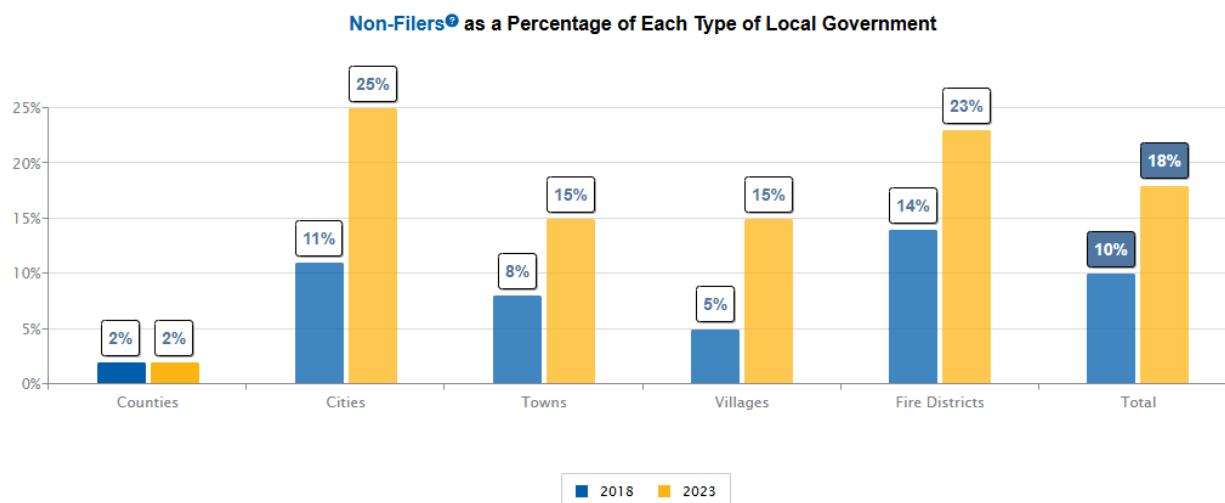**Providing Transparency for Local Financial Reporting**

Local governments are required by law to file Annual Financial Reports (AFRs) with OSC. The filing of AFRs within statutory due dates provides transparency in assessing the financial standing of local governments. A lack of filing prevents various stakeholders – residents, local business owners, debtholders, and state and local officials – from knowing how a local government is faring. In 2023, 439 counties, cities, towns, villages and fire districts did not file AFRs within their statutory due dates; 145 local governments are persistent non-filing entities, having not filed AFRs for the last three or more years.

OSC audits have found that a lack of reporting is often an indicator of poor record-keeping and other troubling financial practices, especially when the problem persists for multiple years. In these situations, fiscal difficulties may go unnoticed and unaddressed far longer, and remedies may be correspondingly more drastic once they are caught.

OSC's AFR Non-Filing interactive tool provides metrics about non-filing local governments, and an AFR Filing Status Tracker, which allows users to search, filter and download the resulting spreadsheet of information.

Figure 6

Annual Financial Report Non-Filing Website

Non-Filers❓ as a Percentage of Each Type of Local Government

Interactive dashboard link: https://web.osc.state.ny.us/localgov/afr-non-filers/

**Monitoring Agency Services in New York City**

Launched in November 2023, the Agency Services Monitoring Tool provides staffing and financial context to New York City's operational services. Derived from the City's Dynamic Mayor's Management Report and 311 data tracing back to 2019 with associated staffing levels and spending commitments, the Agency Services Monitoring

Tool informs managerial decisions such as resource allocation, workload capacity, and resource demands of agencies.
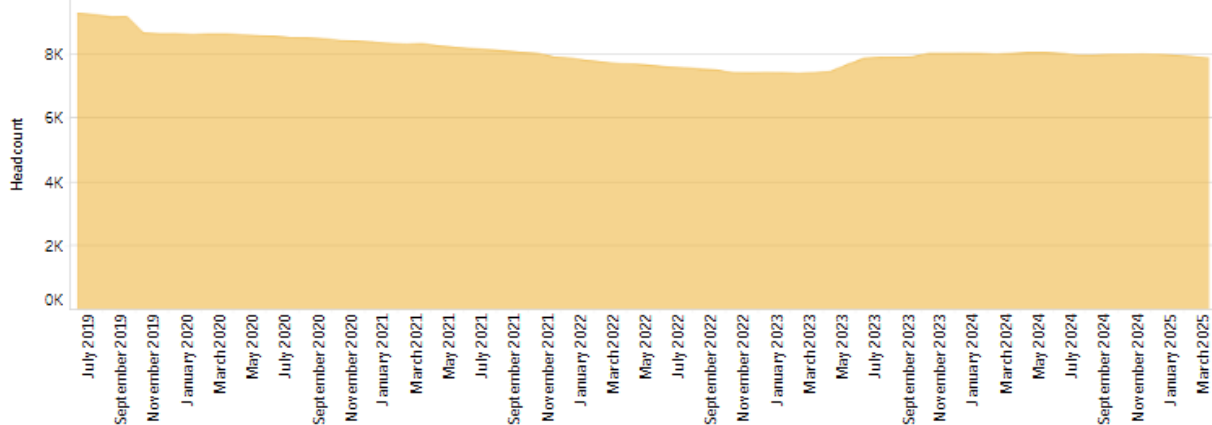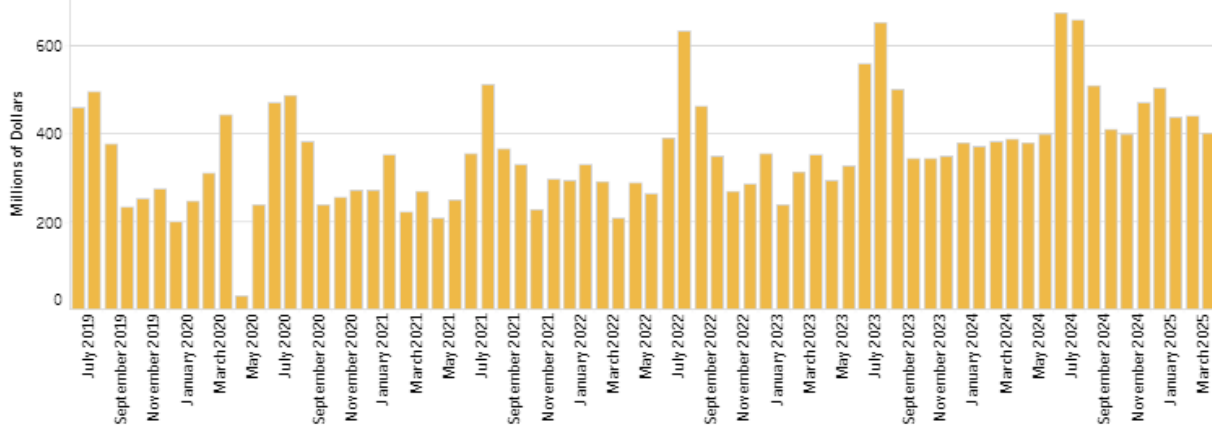
Figure 7

Agency Services Monitoring Tool

Cash Assistance — Application timeliness rate (%) ★ - Critical Indicator
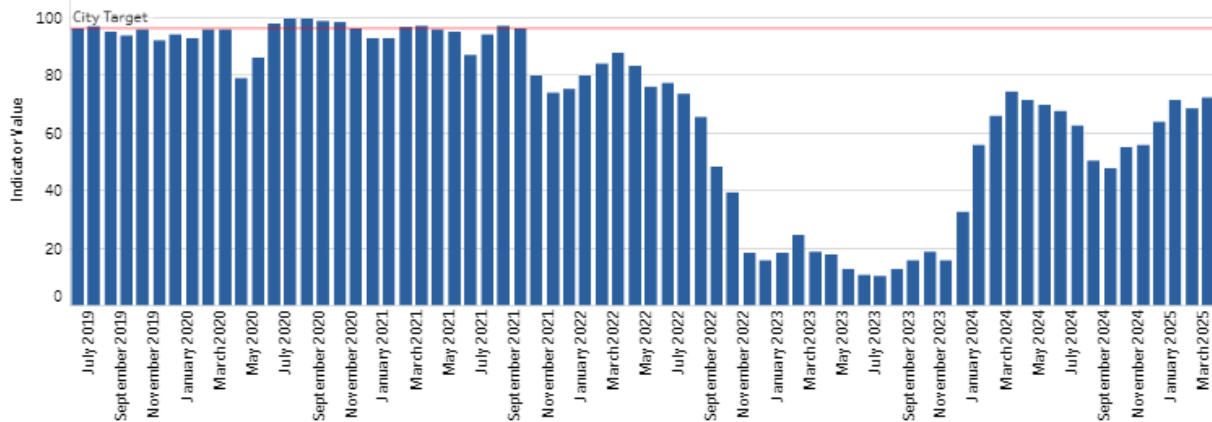
Staffing

Spending

Users can select an agency indicator or 311 service request from the drop-down menus to view a three-panel visualization. This unique perspective allows users to link the trend performance of specific services with related personnel and funding for the same time period. OSC presented the tool to various interested stakeholders.

Interactive dashboard link: https://www.osc.ny.gov/reports/osdc/new-york-city-agency-services-monitoring-tool

Monitoring Train Performance

The Long Island Rail Road (LIRR) is making a steady recovery from the pandemic with growing ridership, increased service routes into the Grand Central Madison terminal and on-time performance in 2023 that was better than in 2019. Still, the LIRR had 31 percent more delays from train car problems in 2023 than in 2019, showing there are still areas that can improve as ridership returns.

Using train delay data from the Metropolitan Transportation Authority (MTA), OSC ranked the reasons for delays, the longest delays and the worst on-time performance for peak morning and evening commutes to and from Penn Station and Grand Central Madison. OSC provided the first analysis of delays after the LIRR increased service routes into Grand Central Madison. This data highlights where service improvements are most needed and allows the MTA to further refine schedules to increase efficiency of service.

Figure 8

Long Island Rail Road (LIRR) Worst Morning Peak Performance in 2023

LIRR Worst Morning Peak Performance

Origin	Scheduled Departure Time	Destination	On-Time Performance	Cancelations/Delays
Huntington	7:40 a.m.	GCM	51.2%	105
Wantagh	7:57 a.m.	GCM	57.2%	92
Port Jefferson	7:10 a.m.	Penn Station	59.8%	102
Babylon	7:49 a.m.	GCM	60.9%	84
Long Beach	7:54 a.m.	Penn Station	64.6%	90
Ronkonkoma	7:10 a.m.	GCM	67.4%	70
West Hempstead	7:53 a.m.	Penn Station	70.5%	75
Speonk	6:18 a.m.	Penn Station	76.8%	59
Babylon	7:23 a.m.	Penn Station	79.1%	53
Babylon	7:31 a.m.	Penn Station	80.3%	50

Note: The figure is based on the departure time and not train numbers which may have changed after GCM service started in 2023.
Sources: Long Island Rail Road; Office of the State Comptroller

Conclusion

OSC's implementation of Section 8-c of the State Finance Law has resulted in the deployment of tools and strategies leading to more effective and efficient systems for auditing payments, monitoring transactions, allocating resources and sharing valuable results with appropriate stakeholders. These efforts have in turn spurred the development of even more robust models and tools. OSC continually evaluates and refines analytic models to incorporate additional data and apply the best methods to ensure that models are assessing the areas of most significance and material risk.

As represented by the examples provided in this report, OSC will continue to work with State agencies and public authorities to identify business processes that could be modified to improve the detection of fraud, waste and abuse and prevent improper payments before they are made. By enhancing the detection of fraud, waste and abuse, data analytics is reducing the cost of delivering services while creating a more level playing field for all the entities that do business with New York State. All New Yorkers stand to benefit from this effort, which safeguards public money and makes government more transparent, accountable and efficient.

Contact