



New York State Comptroller
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Enterprise Fraud, Waste and Abuse Prevention and Detection

Using Data Analytics to Strengthen
Oversight

Annual Report to the New York State
Legislature

September 1, 2024

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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 Payments

Using complex data analytics in OSC audits, approximately \$2.5 billion in improper Medicaid payments was identified for the 12 months ending May 31, 2024.

Examples of improper payments:

- Improper coordination of benefits. Medicaid is the payer of last resort, which means recipients' other third-party health insurance coverage, such as insurance under the Essential Plan, must be exhausted before Medicaid pays. During periods of authorized overlapping Medicaid and Essential Plan coverage, the Essential Plan should be the primary payer and Medicaid, as secondary payer, should pay any remaining liabilities, such as deductibles and coinsurance. The Essential Plan is a health insurance benefit funded 100% by the federal government for lower-income individuals who do not qualify for Medicaid.
- Hospitals overbilled.
- Providers not enrolled in Medicaid that received Medicaid payments.

Audits Identified Improper New York State Health Insurance Program Payments

Similarly, auditors used data analytics to identify improper payments in the New York State Health Insurance Program. Cost savings totaling \$32 million resulted from identifying improper drug and dental claims, as well as missed rebates the State should have collected.

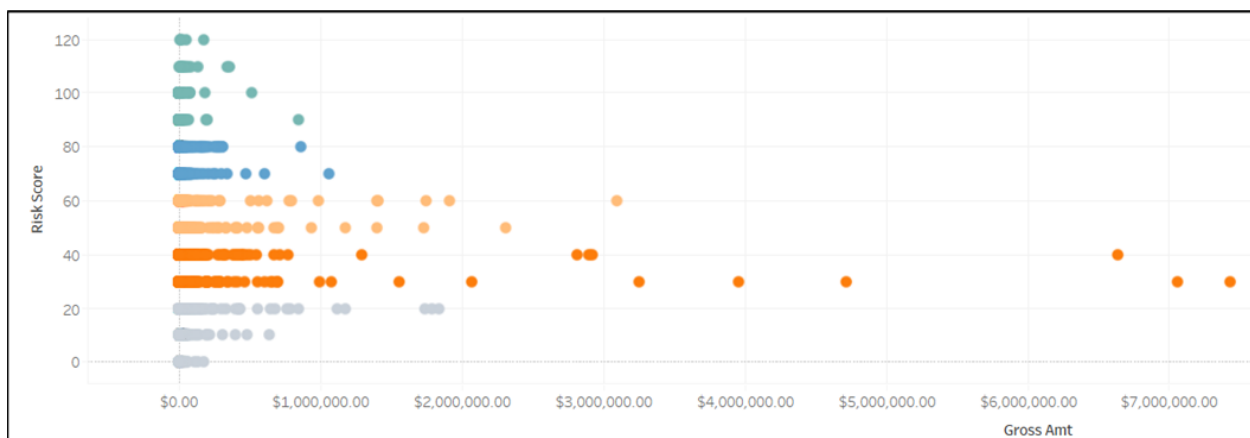
Payment Voucher and Employee Expense Payment Audits

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, 2023 through June 30, 2024, auditors using these tools prevented inappropriate funds from being disbursed and identified compliance issues. These findings, totaling over \$8.0 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. Auditors also identified over \$2.2 million in confirmed audit findings, including more than \$1.5 million in prevented duplicate payments and more than \$713,000 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.

A total of 39 fraudulent Retirement Online accounts were identified within a ten-month period. Once fraudulent online accounts have been confirmed in the daily queries, OSC takes additional data analytics steps to flag transactions with similar characteristics that may be potentially fraudulent. Through this process, OSC prevented three fraudulent loan transactions totaling \$85,000 from being paid and monthly retirement benefits totaling over \$22,000 for four members from being diverted. Inappropriate payment related transactions were avoided for the remaining 32 fraudulent members' online accounts.

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 to NYSLRS account information trigger notifications to ensure that participants are aware of the changes. Participants can report that they did not request the change.

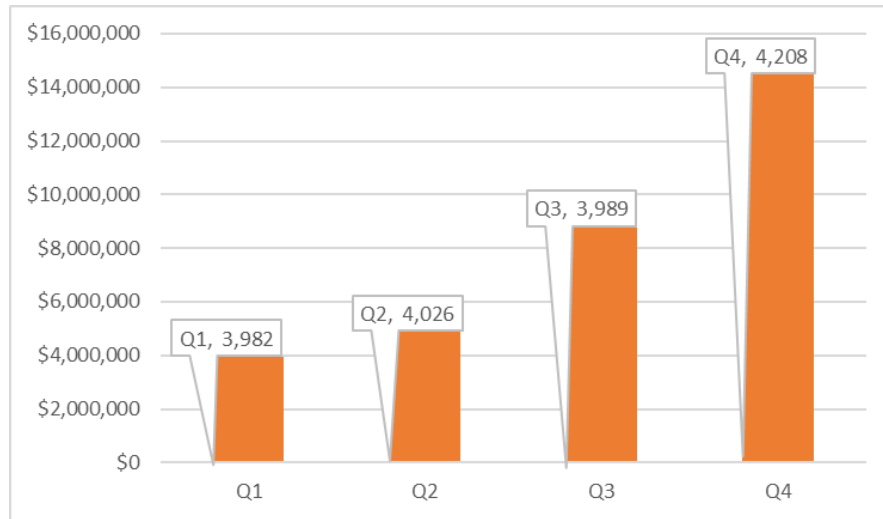
Unclaimed Funds Claim Payment Audit Tools

Online unclaimed funds claims comprise 85% of all unclaimed funds claims. The claims are reviewed within a short window of time to ensure the payment is made to the entitled owner. OSC increased the use of data analytics and data mining to identify factors that could make claim payments risky and improve the auditing process. In State Fiscal Year 2023-24, OUF reviewed 16,205 payments totaling \$32.1 million. As a result

of the reviews, auditors referred 113 payments totaling \$153,071 to OUF claims processors to stop the payment because the payment did not appear to be made to the entitled owner. A data visualization identifies risky fraudulent claims prior to completing the payment process.

Figure 3

Risky Unclaimed Funds Claims Reviewed SFY 2023-24



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 Hannibal Fire Company determined that the former Treasurer misappropriated over \$850,000 of Company funds over a nine-year period. 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 disburse over \$451,000 in unauthorized checks to himself from January 2014 through May 2022. Analysis of credit card transactions for the period April 2016 through May 2022 identified 794 personal cash advances totaling approximately \$334,900, as well as over \$62,300 in personal purchases that were not authorized and benefitted the former Treasurer. (Hannibal Fire Company – Misappropriation of Funds, [2023M-59](#))
- An audit of the Town of Marion found that the former court clerk misappropriated more than \$59,000, or 38 percent of the fines, fees and surcharges collected between January 1, 2016 through May 31, 2021. Data analytics was used to examine cases and the associated fines, fees and surcharges, providing the audit team with targeted data observations for further risk assessment and review. (Town of Marion – Misappropriation of Justice Court Cash Collections, [2023M-149](#))

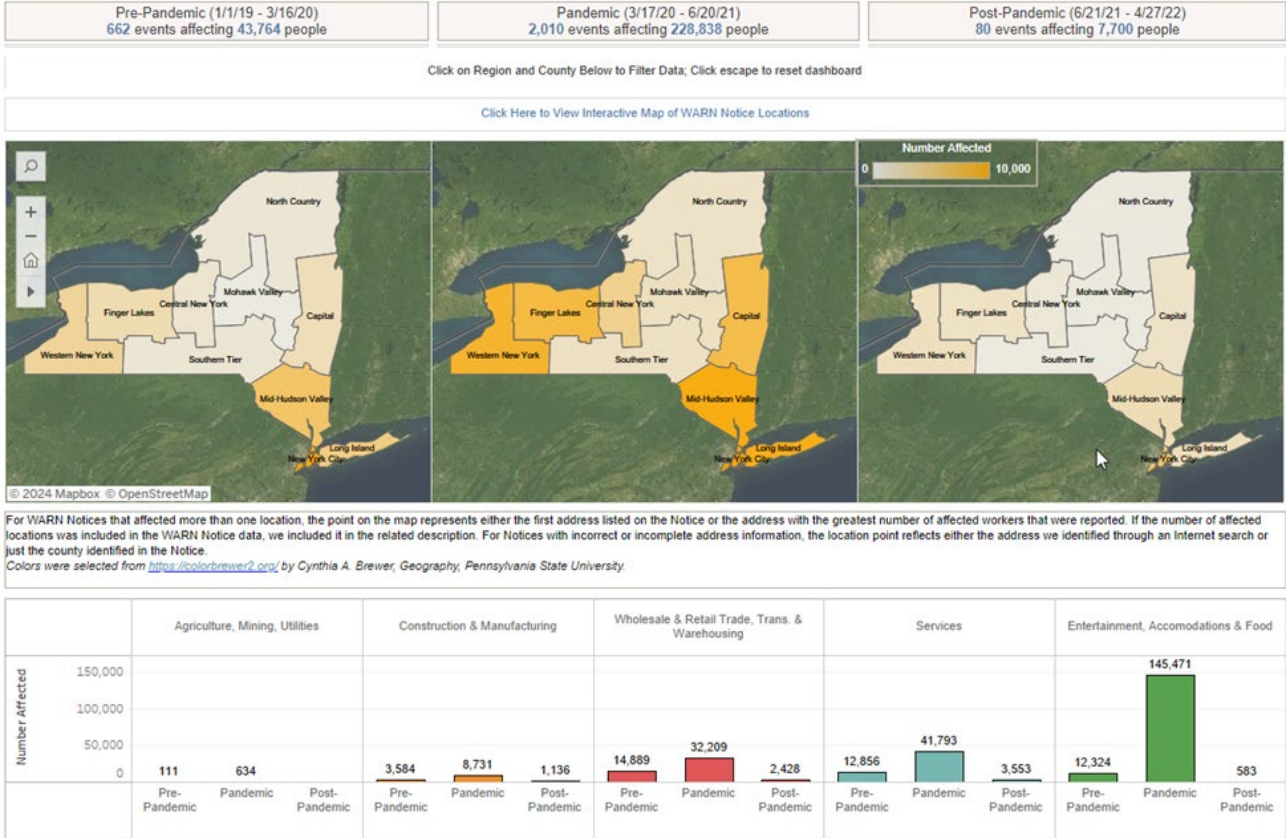
Using Analytics to Improve Program Effectiveness

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 Labor (DOL): Services to Workers Under the Worker Adjustment and Retraining Notification (WARN) Act ([2022-S-11](#))

Under New York State’s Worker Adjustment and Retraining Notification Act (WARN Act), covered employers are required to give early warning to employees – at least 90 days advance notice (Notice) – of a mass layoff, relocation, or employment loss and to file a Notice with DOL. Receipt of a Notice triggers staff to offer Rapid Response services, such as job search and résumé preparation assistance, career counseling, and occupational skills training, to assist workers in obtaining re-employment as soon as possible.

Figure 4
WARN Locations



The audit analyzed DOL data and uncovered weaknesses in DOL’s oversight that undermine its success in meeting the needs of dislocated workers, namely: issues with employer compliance with the Notice requirement; Notices that were not entered into DOL’s One-Stop Operating System (OSOS), the system used to record related services to employers and affected employees; and late outreach to employers that submitted Notices and to affected employees—and in some cases no record of any outreach. The audit included an interactive map providing information on the industries, geographic areas, and employees affected.

Interactive dashboard link: <https://www.osc.ny.gov/state-agencies/audits/services-workers-under-worker-adjustment-and-retraining-notification-act-dashboard>

Department of Health (DOH)/Division of Homeland Security and Emergency Services (DHSES): Oversight of Water Supply Emergency Plans ([2021-S-39](#))

Community water systems that supply drinking water to more than 3,300 people (Water Systems) are required to prepare and submit a Water Supply Emergency Plan (Plan) to DOH for review at least once every 5 years.

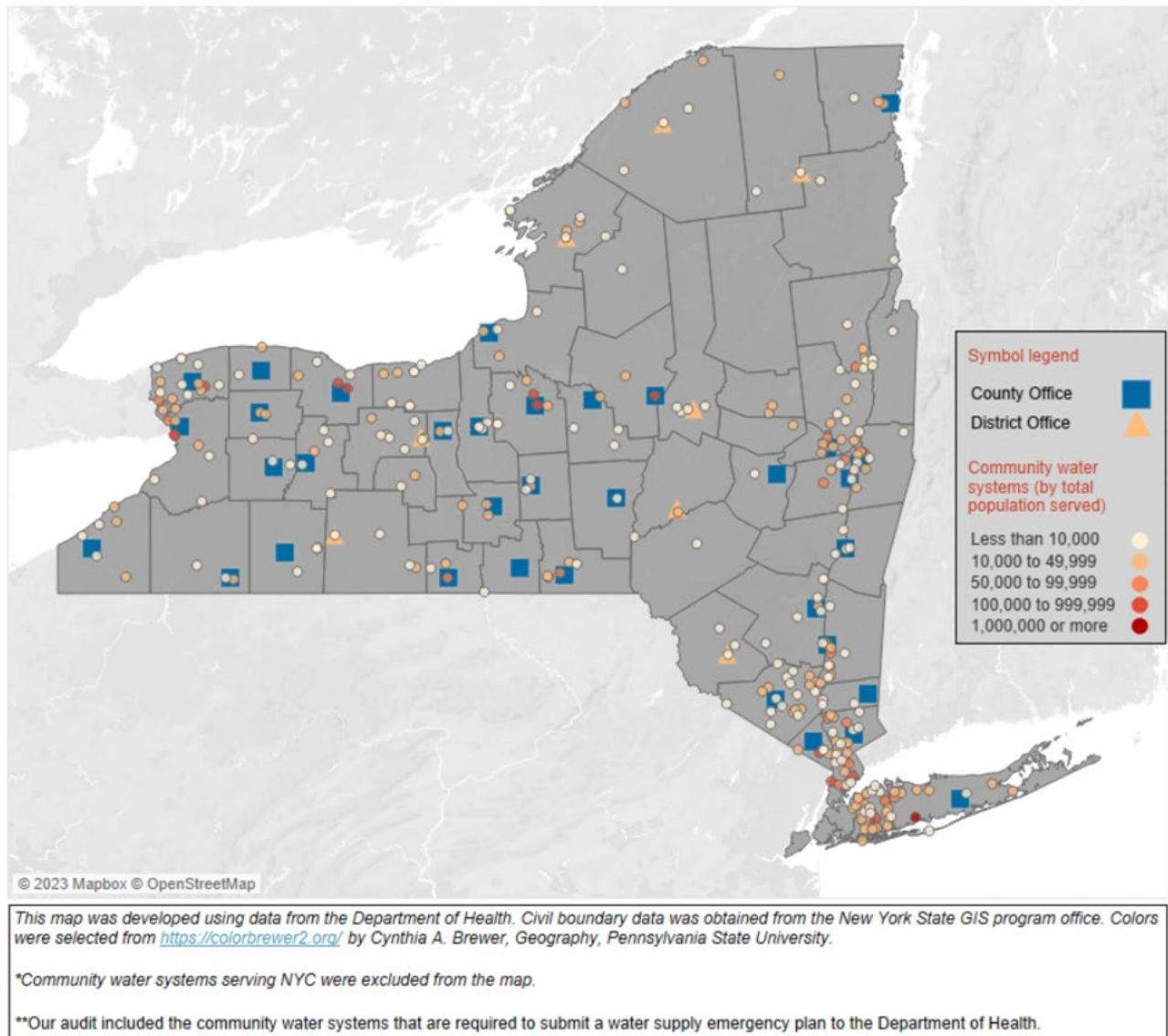
Plans must include both an Emergency Response Plan (ERP), identifying key contact information and the location of technical support and replacement equipment for critical system components; and a Vulnerability Assessment (VA), identifying any vulnerabilities to non-intentional (e.g., floods, power outages) and intentional (e.g., vandalism, terrorism) events, along with corrective actions. As of 2018, Water Systems were also required to include an analysis of vulnerability to terrorist attack, cyberattack, and natural hazards (Cybersecurity Vulnerability Assessment or CVA) in their VA.

While the audit found that the Plans for most of the Water Systems were current and available at DOH, it also identified many instances where the ERP or VA had not been updated in more 10 years since the Water System’s last submission, and some Water Systems had never submitted a CVA. In addition, DOH did little to follow up when Water Systems were late in submitting or didn’t submit Plan revisions.

Auditors analyzed data from the Safe Drinking Water Information Systems and DHSES as part of the audit and also used data visualization software to create a map of the water suppliers to enhance understanding of the report.

Figure 5

Community Water Systems Serving More than 3,300 Residents



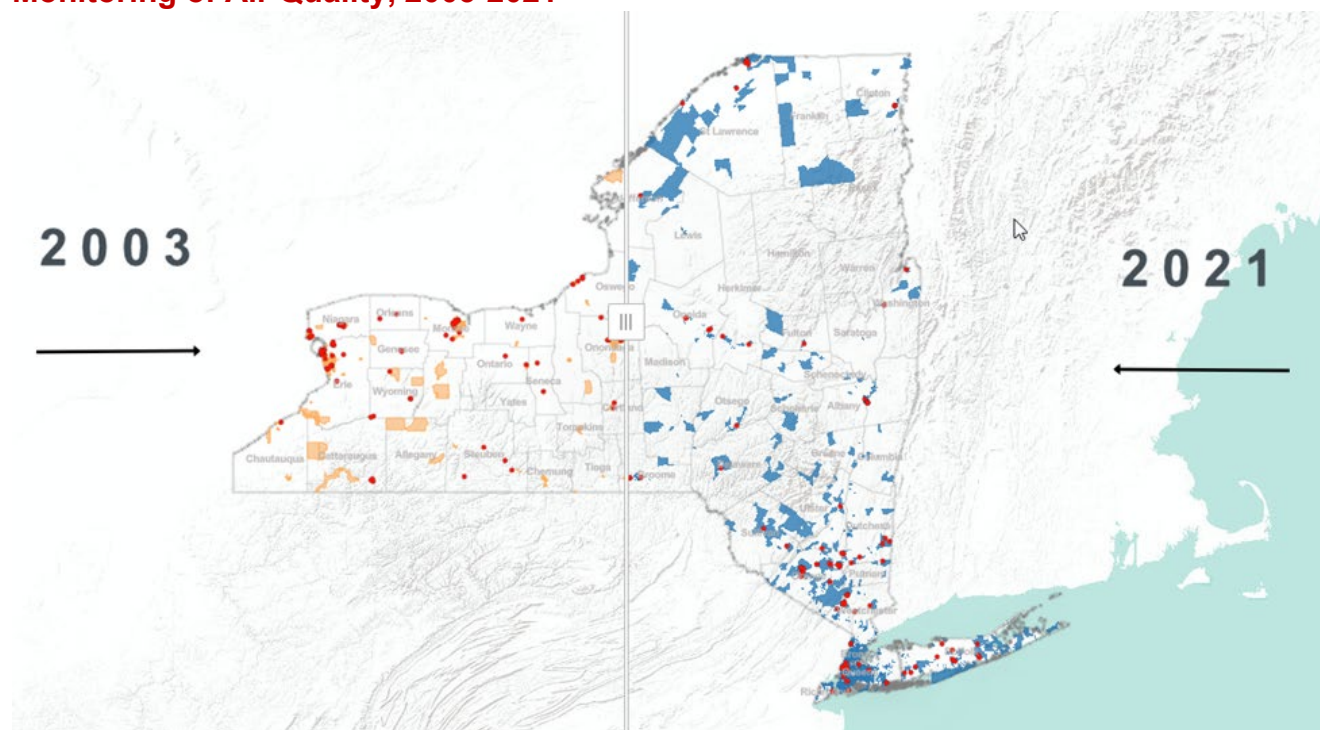
Department of Environmental Conservation (DEC): Monitoring of Air Quality (Facility Permits and Registrations) ([2021-S-41](#))

OSC audited DEC's air permitting process and found DEC's air permitting process is not adequately allowing residents, particularly low-income and minority communities (known as environmental justice areas or EJ areas) access to information about the harmful effects of pollution emitted in their communities as their monitoring of EJ areas failed to keep pace with the changing demographics over the years.

Auditors analyzed DEC data and showed that from 2011 to 2021, many areas of the State experienced significant shifts in populations and incomes, yet DEC continued to use its outdated static maps from 2003 despite having updated data in 2011. Of 71 facilities auditors reviewed, 13 are now located in an area that is currently defined as EJ using the 2021 map criteria but that was not originally defined as such at the time of the facility’s initial application.

Figure 6

Monitoring of Air Quality, 2003-2021



Interactive dashboard link:

<https://nysosc.maps.arcgis.com/apps/instant/portfolio/index.html?appid=0f8c0ab70003422da1f6d41e6b1ac13e>

Office of Renewable Energy Siting (ORES): Application Review and Site Permitting for Major Renewable Energy Projects (2023-S-52)

The Climate Leadership and Community Protection Act (Climate Act), effective January 1, 2020, was designed to put the State on a path to zero emissions in all economic sectors, enact standards among the most aggressive in the United States, and require 100% carbon-free electricity by 2040, placing New York’s program on par with leading programs nationally and internationally. Created in 2020, ORES is tasked with reviewing proposed major renewable energy facilities, and in support of the Climate Act’s ambitious goals and timeline, its goal was to streamline and expedite the siting process,

reducing its time frame for completion from 4–5 years to 1 year, to bring facilities online faster.

While the audit found that the overall time between application and final siting permit had improved, the siting permit process is taking significantly longer than projected for a given project—more than 1 year and in some cases up to 3 years—because certain, often time-consuming steps are not being accounted for. For the 15 projects that ORES has reviewed thus far, auditors found that neither the time to issue a notice of incomplete application and for the applicant to respond nor the time prior to an application’s transfer to ORES was taken into consideration. For the 14 projects that received final siting permits, it took an average of 1,094 days (3 years) to deem the application complete—the longest part of ORES’s process—and, overall, an average of 1,333 days (3.7 years) from the initial application date to the date the final siting permit was issued. These results were developed by analyzing data from ORES’s Document and Matter Management System and Open NY. This data was also used to generate a [timeline infographic](#) to foster readers’ understanding.

Metropolitan Transportation Authority (MTA)/New York City Transit (Transit): Risk Assessment and Implementation of Measures to Address Extreme Weather Conditions ([2021-S-27](#))

In the decade since Superstorm Sandy, weather predicting models have indicated that, with rising sea levels, the range and depth of storm surge will increase across New York City, resulting in more flooding to more property. Coastal flooding caused by storm surge can cause severe corrosion of Transit’s infrastructure equipment. Protective measures need to be designed to function while services are still running.

Although Transit has developed winter, hurricane, rain, and extreme heat plans, the audit found that these plans were inconsistently activated, with no documentation explaining the rationale for decision making. In the audit’s analysis of data for 18 weather events, it was found that plans had not been activated for six events that included tropical storms, hurricanes, or coastal flooding. This analysis was based on weather data obtained from the National Oceanic and Atmospheric Administration.

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.

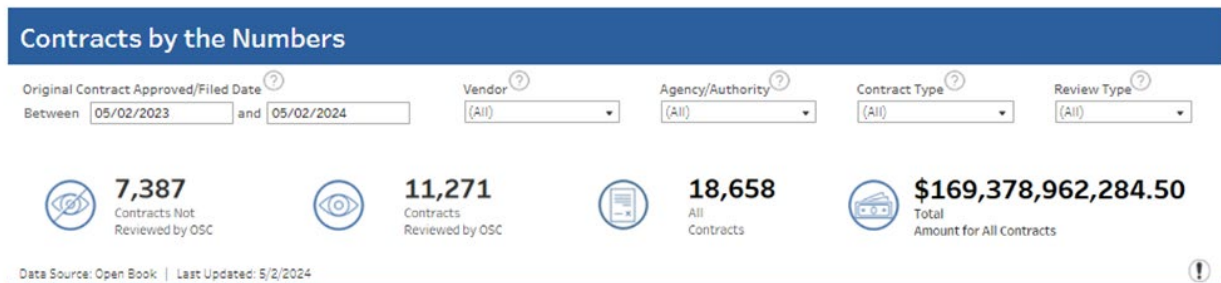
Greater Transparency on State Agency and Public Authority Contracts

In March 2024, OSC launched a new state contracting webpage along with the Contracts by the Numbers dashboard. The dashboard tool allows users to search and sort contract data by agency or authority, vendor, and contract type, including contracts that were not reviewed by OSC.¹ OSC maintains financial data and information on over 240,000 state contracts. The Contracts by the Numbers dashboard and web page were created to provide the public with an easy and user-friendly way to access information on state contracts.

The webpage also highlights how the Comptroller's review is an essential and important deterrent to waste, fraud and abuse and provides statistics and graphs on overall review timeframes including showing that over 94% of all contracts reviewed by OSC in 2023 were approved or non-approved within 15 days. This is just a fraction of the time for an overall procurement cycle. Through these contract reviews, OSC can find opportunities for the agencies and authorities to renegotiate and save costs as well as identify costly errors.

¹ OSC's contract oversight extends to most State agency contracts, generally those where the contract value exceeds \$50,000. The Comptroller may also review State public authority contracts valued at more than \$1 million if they are either awarded noncompetitively or paid in whole or in part from State appropriations. In certain cases, OSC's contract oversight has been bypassed by appropriation or other legislative action, or authorization from an Executive Order resulting from a declared emergency.

Figure 7
Contracts by the Numbers



Vendors	Contract Types	Contracts
Providers of goods and services to agencies	Types of contracts to provide goods and services	New York State contracts by value
ANTHEM HP LLC \$25,875,907,281.00	SERVICE \$137,419,642,090.29	C036366 \$16,111,905,898.00
CENTERS PLAN FOR HEALTHY LIVIN. \$16,711,583,839.00	CONTRACTS NOT SUBJECT TO OSC \$7,931,271,576.15	C036376 \$13,347,994,749.00
VNS CHOICE \$12,731,648,623.00	GRANT \$6,507,906,759.46	C040021 \$12,443,790,399.00
NEW YORK QUALITY HEALTHCARE C. \$12,527,389,448.70	CONSULTANT \$4,010,330,773.71	C036387 \$11,012,231,585.00
HEALTHFIRST HEALTH PLAN INC. \$10,176,399,106.00	COMMODITY \$3,899,911,954.12	C036579 \$10,176,399,106.00
SENIOR WHOLE HEALTH OF NEW YO. \$8,119,983,242.00	CONSTRUCTION \$3,869,853,202.37	C036373 \$8,641,494,870.00
ELDERPLAN INC \$7,454,918,721.00	INTER-GOVERNMENT \$3,479,925,088.45	C036384 \$8,044,015,918.00
HEALTHFIRST PHSP INC \$7,038,692,339.00	LEASE \$1,309,299,430.53	C036367 \$5,957,457,917.00
VILLAGE SENIOR SERVICES CORPOR. \$5,926,782,327.00	PRINTING \$347,506,873.03	C036368 \$5,803,735,445.00
ELDERSERVE HEALTH INC \$5,857,011,353.00	REVENUE GENERATING \$300,845,000.19	C036375 \$5,721,527,077.00
AETNA BETTER HEALTH INC \$3,006,388,241.00	EQUIPMENT \$196,634,741.53	C036385 \$4,642,118,074.00
GATEWAY DEVELOPMENT COMMIS. \$2,943,695,468.00	LAND PURCHASE \$91,969,691.67	C039708 \$3,682,044,195.20
CARELON BEHAVIORAL HEALTH INC \$2,785,391,306.00	COMMUNITY PROJECTS FUND (ME. \$8,373,878.00	C036363 \$3,006,388,241.00
CATHOLIC MANAGED LONG TERM C. \$2,201,181,168.00	REPAYMENT TO STATE \$5,491,125.00	F000192 \$2,924,304,000.00
VNA HOMECARE OPTIONS LLC \$2,034,305,058.00		C000743 \$2,785,391,306.00
INTEGRA MLTC INC \$1,819,029,129.00		C036386 \$2,034,305,058.00
AMIDA CARE INC \$1,770,543,953.00		C036365 \$1,927,747,258.00
HAMASPIK CHOICE INC \$1,528,253,991.00		C036378 \$1,819,029,129.00
NEW YORK CITY OF \$1,303,788,868.29		C040016 \$1,770,543,953.00
ICIRCLE SERVICES OF THE FINGER L. \$1,241,608,140.00		C036587 \$1,719,417,038.00
COTTON COMMERCIAL USA INC \$798,717,160.97		C036374 \$1,528,253,991.00
GARNER ENVIRONMENTAL SERVICES \$798,717,160.97		C036576 \$1,497,460,804.00
METROPLUS HEALTH PLAN INC \$726,155,472.00		C039700 \$1,317,165,262.00
EXCELLUS HEALTH PLAN INC \$671,459,251.93		C036586 \$1,284,664,253.00
BILLS STADIUM AND EVENTS COMP. \$600,000,000.00		C036377 \$1,241,608,140.00
AGEWELL NEW YORK LLC \$591,281,419.00		P570100 \$798,717,160.97
JUDLAU CONTRACTING INC \$577,200,060.00		P570099 \$798,717,160.97
MVP HEALTH PLAN \$563,997,309.40		C036379 \$715,758,205.00

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 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 timelier and efficiently, promoting program and operational effectiveness. During the period January 1, 2024, through May 31, 2024, NYSLRS identified the death of 6,015 monthly retirement benefit recipients and recovered \$1.6 million in overpaid pension benefits. By comparison, \$1.5 million was recovered for the same period in 2023.

Monitoring Emergency Spending

In October 2023, OSC launched a new online tool to monitor emergency spending related to assistance for asylum seekers by New York State and New York City: the [Asylum Seeker Spending Report](#). This emergency spending represented a substantial, non-routine expense for the State and for New York City. By presenting the most granular spending presentation of State expenses related to this purpose that is publicly available, the tool enhances transparency and shows why additional funding and logistical support is needed from the federal government.

The tool presents monthly State spending by activity and agency and annual spending by New York City by agency. The data are updated monthly and available for download by users. It also offers links to the Governor’s Executive Orders declaring and extending the disaster emergency in the State of New York, which also temporarily suspended competitive procurement requirements and pre-audit review by OSC for contracts and contract amendments related to the emergency.

Figure 8

Asylum Seeker Spending Report – Monthly State Agency Spending

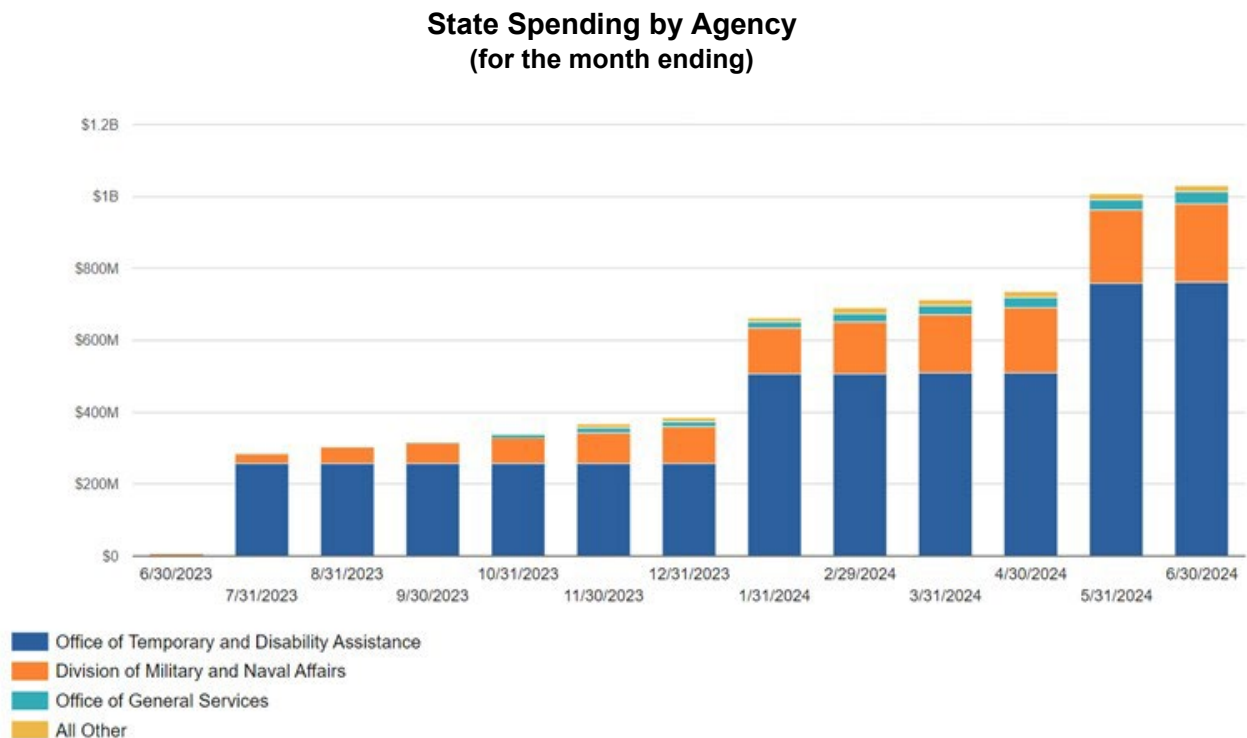


Figure 9

Asylum Seeker Spending Report – Annual State Agency Spending

SFY 2024 and SFY 2025 Spending by Activity and Agency

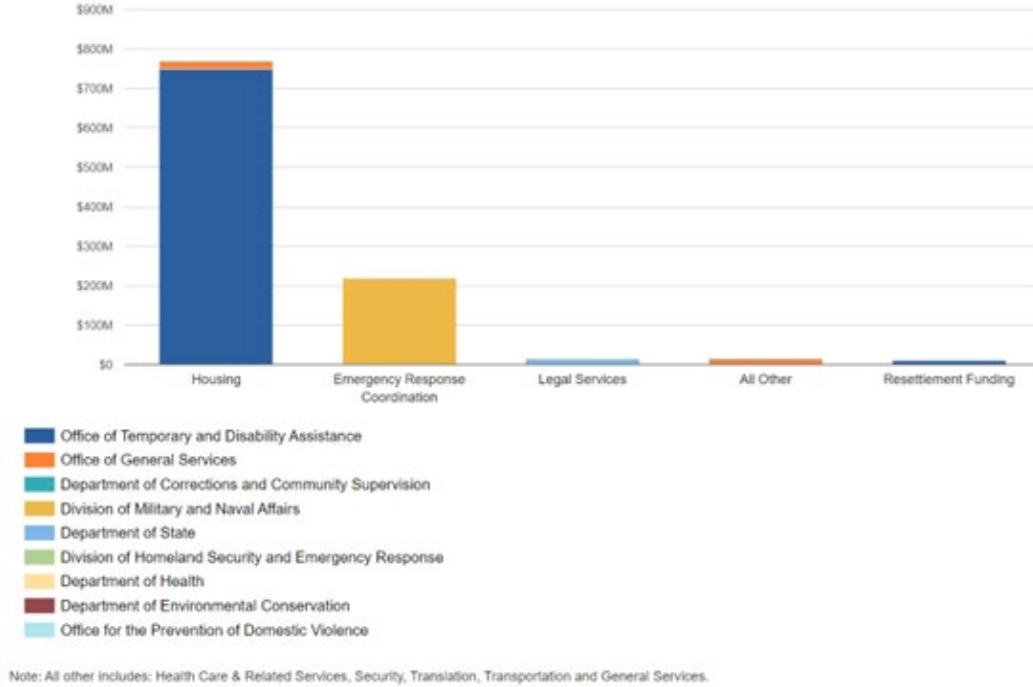
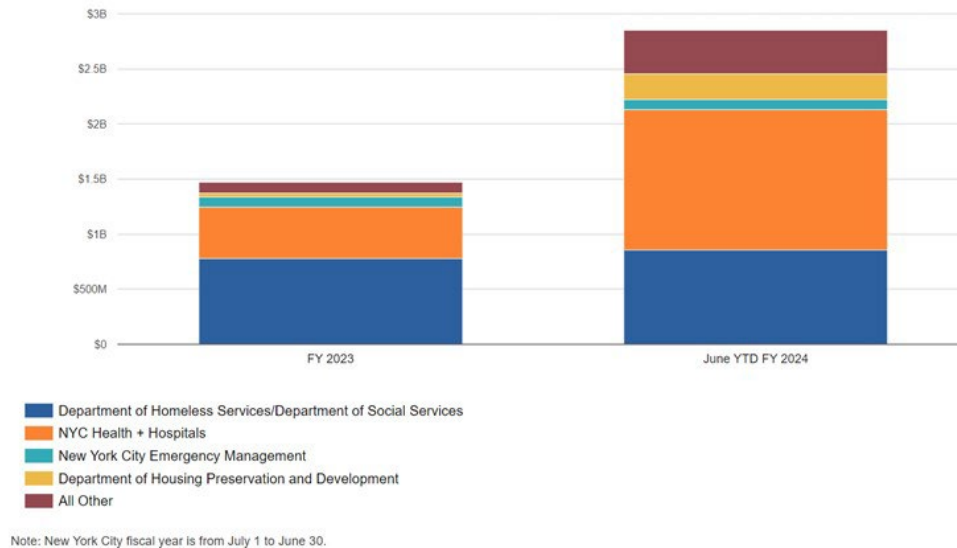


Figure 10

Asylum Seeker Spending Report – Annual New York City Spending

New York City Asylum Seeker Expenses by Agency, FY 2023 and FY 2024 (through June 30, 2024)

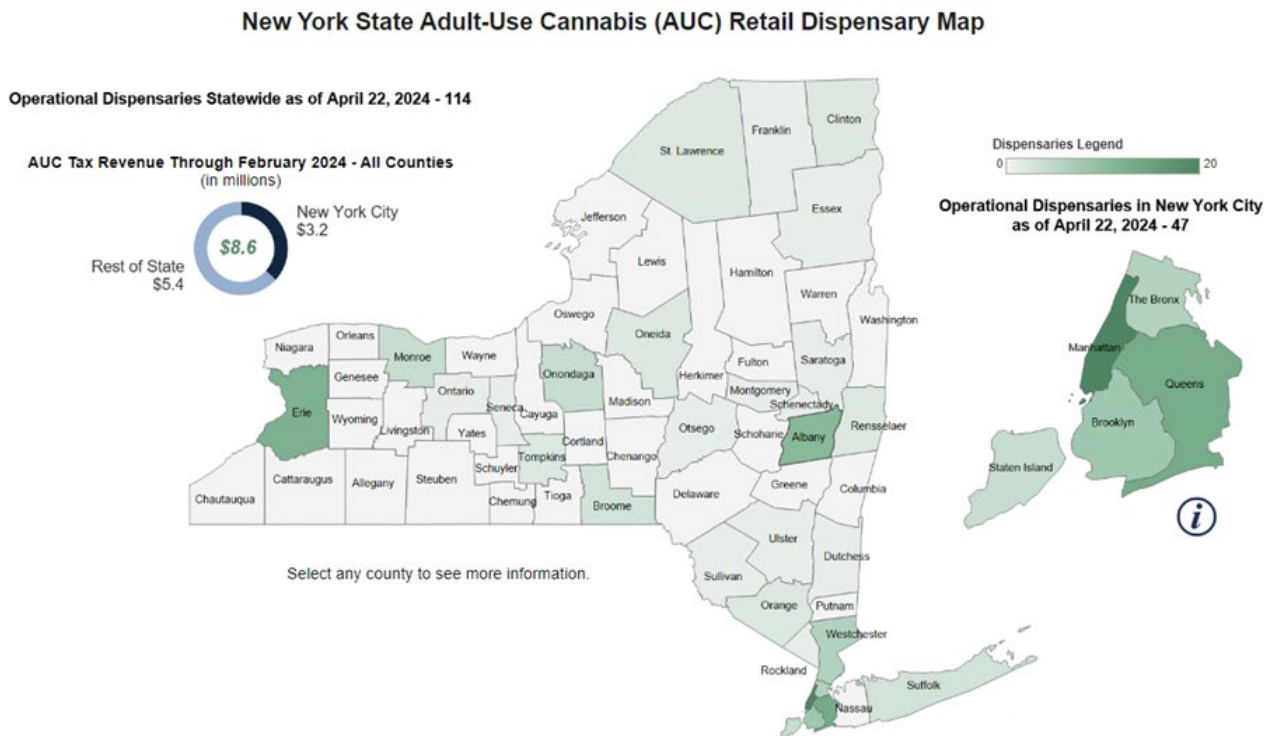


Providing Transparency for Adult Cannabis Tax Revenue Payments

OSC is responsible for making adult-use cannabis (AUC) tax revenue payments to counties and New York City at the direction of the New York State Department of Taxation and Finance. In late April 2024, OSC released a map displaying the aggregate AUC revenues collected by retail dispensaries in New York City and all counties in the rest of the state.

Figure 11

Adult Use Cannabis



Interactive dashboard link <https://www.osc.ny.gov/local-government/adult-use-cannabis-tax-revenue-and-retail-dispensaries-new-york-state>

Making MTA Cost Data Meaningful

In October 2023, the Metropolitan Transportation Authority (MTA) released an updated version of its 20-Year Needs Assessment (TYNA), an assessment of its capital needs as required by State legislation. Due to the absence of projected costs in the assessment, OSC applied an inflation factor to the MTA's 2013 TYNA in its report [A Review of Capital Needs at the Metropolitan Transportation Authority](#). This adjustment made it easier to quantify the cost of the 2023 TYNA.

With this methodology, OSC estimated that \$69 billion was needed over the 10-year period covering two capital programs from 2015 through 2024, and at least another \$43 billion was needed for the next capital program period, from 2025 through 2029.

The 2023 TYNA projected the MTA will have to purchase more than 3,900 subway cars over the next 20 years to replace existing cars. OSC estimated that the cost of replacement could approach \$15 billion. The estimates added context and transparency to the MTA's TYNA and highlighted the urgent need for the MTA to state its priorities and funding plans as early as possible.

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.

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.

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