NY Budget Spending Analysis Dashboard

Team Members

Leena Balagalu

Vishnu Charugundla

Rithika Gurram

Yaswanth Lalpet Vari

Sai Sinduri Vangala

Data Source

The project utilizes official New York State budget data obtained from the NY Open Budget Portal:

- Source: New York State Open Budget Database
- Access: Available through the download option at the bottom of the webpage
- Data Type: Historical budget allocation and spending records in an Excel Workbook file

Project Description

This project focuses on analyzing New York State's budget spending patterns using historical data. Through interactive Tableau dashboards, we examine how funds are allocated and spent across various government functions, agencies, and fund types. The analysis provides valuable insights into fiscal priorities and trends, helping stakeholders understand budget distribution, identify discrepancies between allocated and actual spending, and uncover opportunities to optimize resource allocation. Key focus areas include identifying which government departments receive the most funding, analyzing how funds are

distributed between different types of projects (e.g., infrastructure or environmental protection), and uncovering spending patterns over time. The goal is to empower decision-makers with actionable insights to plan better and allocate public funds more effectively.

Budget Overview Dashboard

The Budget overview dashboard provides a three-part analysis of New York State's budget trends, beginning with a comprehensive display of average budget metrics over the last 5 years, showing actual spending (\$804.1B), along with CPI-adjusted values in both 2024 dollars (\$1.09T) and 1994 dollars (\$537.4B). The second component presents a comparative analysis between 1994 and 2024 budget allocations across different functional areas. The final section features an interactive year-on-year percentage change analysis with a versatile toggle functionality that allows users to switch between actual budget amounts and CPI-adjusted values in both 2024 and 1994 dollars, enabling a clear understanding of both nominal and real budget growth over time.

Comprehensive insights dashboard

The Comprehensive Spending Insights dashboard provides a detailed view of government spending, highlighting key functions like Health and Education as top priorities. It visualizes year-over-year growth trends, revealing significant fluctuations such as emergency spending spikes, while the treemap showcases major agency contributions like the Health and State Education Departments. The stacked area chart illustrates evolving fund type distributions, with General and Debt Service Funds consistently dominating, and the expense vs. capital breakdown emphasizes operational spending. With dynamic interactivity, clear visuals, and filter-driven insights, this dashboard enables stakeholders to analyze budget allocations, growth patterns, and spending priorities effectively.

Health & Education dashboard

This specialized dashboard delves deep into New York State's two largest spending categories, with total allocations of \$1.47T for Health and \$861.8B for Education, presented through a comprehensive four-panel analysis. The top section displays temporal trends across functional agencies within both sectors, with Health showing significant growth in Department of Health and interesting trends in Medicaid Inspector General and Stem Cell Innovation programs. At the same time, Education exhibits steady incremental growth across its departments in Department of Education, STAR and Arts council. The dashboard's lower panels provide detailed fund-type distributions, revealing that Special Revenue Funds dominate health spending (reaching \$1.39B), while Education maintains a more balanced distribution across General Fund (33.56%), Special Revenue Funds (36.56%), and Capital Projects (19.77%). This focused analysis underscores the distinct funding approaches and priorities within these crucial sectors, offering valuable insights into how New York State manages its two largest budget categories.

Agency dashboard

The Agency dashboard provides a dynamic and interactive view of New York State's spending, offering insights into departmental expenditures through four interconnected visualizations. A Year of Year filter allows users to explore data across a range of years, from 1994 to 2024, making it easy to analyze spending trends and patterns over time. This filter enables users to select specific years and compare how spending priorities and allocations have evolved across various categories.

For the year 1996, the dashboard highlights critical metrics across multiple categories:

1. The Spending by Functional Area Yearly chart allows users to explore New York State's departmental expenditures across a range of years, from 1994 to

2024. For 1996, we can see that the largest portions of the budget were allocated to Health, Education, and Social Welfare.

- Health accounted for 29.52% of the total budget, representing a total spending of \$18,594,349,000.
- Education received 20.14% of the budget, amounting to \$12,688,850,000 in total expenditure.
- Social Welfare was allocated 11.60% of the budget, which translates to a spending of \$7,305,476,000.
- 2. The Breakdown by Agency illustrates the budget spent on various types of Agencies from 1994 to 2024. For 1996 year we can see that the Education Department, State and Temporary Disability Assistance, Office of and Transportation, Department of as the top spenders, with spending in these agencies ranging from \$12.66B to \$1.68B.
- 3.The Spending by Fund Type treemap emphasizes the General Fund as 48.99% of total spending and Special Revenue Funds Federal as 27.06% of total spending are the top 2 sources of funding in 1996 and they are key contributors to the state's budget from 1994 to 2024.
- 4. The Breakdown by Fund Type illustrates the budget spent on various types of funds from 1994 to 2024. For 1996 we can see that the highest one is observed in Local Assistance Account which has \$22.08 and the lowest one is observed in Federal Capital Projects which has \$0.87B

The dashboard also features a Top N filter, which categorizes the "Breakdown by Agency" and "Breakdown by Fund Type" into top 5, top 10, and top 50 categories. This filter provides users with the flexibility to focus on the largest contributors or explore a broader range of spending categories, enhancing the depth of analysis.

By combining the Year of Year filter (spanning from 1994 to 2024) and the Top N filter, the dashboard enables stakeholders to track and compare spending trends across multiple years, providing a comprehensive view of how New York State's funding priorities and resource allocations have changed over time.