

Claude3 Opus Sales Report
City Of New York, 2019 vs 2020
Prepared: 23 April 2024

This report uses charts designed according to the International Business Communication Standards (IBCS) to ensure clarity, consistency, and information density.

Key elements:

1. **Consistent chart design:** All charts follow a uniform design, making it easier for readers to understand and compare data across different visualizations. This includes consistent use of fonts, sizes, and positioning of elements.
2. **Simplified and focused content:** Charts are designed to be easily readable, with a focus on essential information. Unnecessary decorative elements are avoided to maintain clarity.
3. **Proper labeling and titling:** Each chart includes clear, descriptive titles and labels to ensure that the data is easily understood without additional context.
4. **Standardized notation:** IBCS-compliant charts use standardized notation for elements such as time periods, units, and scenarios, making the information more accessible and comparable.

The following conventions are used throughout the report:

- **Black** represents actual values for the current year
- **Grey** represents data from the previous year
- **Red** indicates negative or "bad" performance
- **Green** indicates positive or "good" performance
- **"PY"** is used to denote the previous year values
- **"AC"** refers to the actual current year values
- **Underscore "_"** is used to represent year-to-date data
- **Tilde "~"** indicates a rolling year or 12-month period

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Spending Surge: New York City's spending jumped by \$13.9 billion from 2019 to 2020, largely due to higher human resources costs, especially in the Department of Education. The increase stemmed from changes in pricing, sales volume, product mix, and more spending on labor, debt service, and social services. Most agencies saw cost increases, mainly in contractual services, fringe benefits, and full-time salaries, while decreases were rare and minor.

Budget Breakdown: In 2020, New York City spent a whopping \$284.8 billion, with the Department of Education taking the lion's share at \$80.1 billion or 28% of the total. Personnel costs like salaries and fringe benefits dominated the city's expenses, particularly in the Department of Education and Police Department. The city experienced an average Costs Growth Rate of 5.0% across all categories, with the Department of Education leading in additional pay and other expenses growth.

Concentration and Growth: The city's budget is highly concentrated, with a mere 3.7% of Budget Code Names accounting for 80% of total spending. This concentration presents challenges and opportunities for optimization. While overall unit growth is modest, some smaller units show high growth potential that could be harnessed through targeted resource allocation. Fringe Benefits stand out with high costs and growth rates compared to other categories, emphasizing the need for strategic financial planning.

Trends and Drivers: From 2019 to 2020, New York City's costs rose by 5.1%, with the Department of Education and Miscellaneous categories experiencing the most significant growth. The "Other rank >8" category consistently drove costs, exceeding \$140.0 million annually with a 6.3% growth rate. In contrast, Redemption Of Funded Debt costs dropped sharply by 24.5%.

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At a glance: New York City's spending increased by \$13.9 billion from 2019 to 2020, largely driven by higher costs in human resources, especially in the Department of Education. The rise was attributed to changes in pricing, sales volume, product mix, and increased spending on labor, debt service, and social services. Most agencies experienced higher costs, with contractual services, fringe benefits, and full-time salaries being major contributors, while decreases were uncommon and minor. Pages 8 to 14.

Sales breakdown: New York City spent a total of \$284.8 billion in 2020, with the Department of Education having the highest expenditure at \$80.1 billion, or 28% of the city's total. The city's expenses were primarily allocated to personnel costs like salaries and fringe benefits, with the Department of Education and Police Department spending significant portions of their budgets on these areas. The city also saw an average Costs Growth Rate of 5.0% across all categories, with the Department of Education experiencing the highest growth in additional pay and other expenses. Pages 16 to 22.

Data insights: New York City's budget is highly concentrated, with just 3.7% of Budget Code Names accounting for 80% of total spending, presenting both challenges and opportunities for optimization. The city's units show modest growth overall, but some smaller units have high growth potential that could be leveraged through targeted resource allocation. Fringe Benefits stand out with both high costs and growth rates compared to other expenditure categories like Full Time Salaried and Contractual Services, highlighting the need for strategic financial planning that adapts to these dynamics. Pages 24 to 27.

Trends: New York City's costs increased by 5.1% overall from 2019 to 2020, with the Department of Education and Miscellaneous categories seeing the most significant growth. The "Other rank >8" category was a major cost driver, exceeding \$140.0 million each year with a 6.3% growth rate, while the Redemption Of Funded Debt costs fell sharply by 24.5%. Pages 29 to 33.

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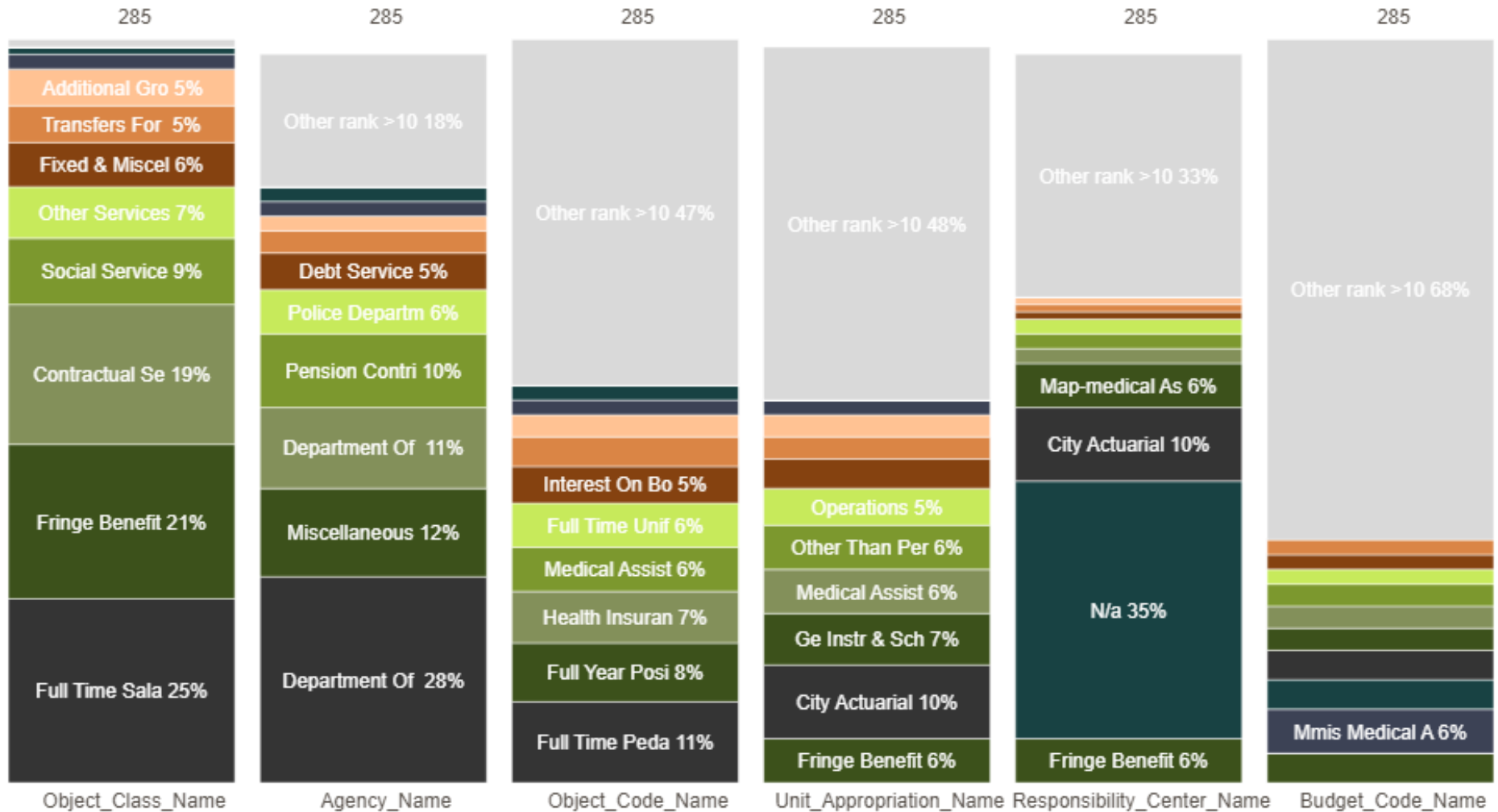
New York City's spending increased by \$13.9 billion from 2019 to 2020 (p.10, p.12). The growth was largely driven by higher costs in human resources, with full-time salaries and benefits accounting for 46% of the total budget and contractual services making up another 19% (p.9, p.13, p.14). The Department of Education and the Miscellaneous category saw the most significant increases, both over \$3.0 billion (p.11, p.13, p.14), while the Department of Design & Construction was the only category with lower costs (p.11).

The rise in costs was attributed to changes in pricing, sales volume, and product mix (p.10), as well as increased spending on labor, debt service, social services, and a significant adjustment in debt service allocations (p.12). Most agencies experienced higher costs, with the Department of Education having the highest increase at around \$6.2 billion (8%), primarily in personnel-related expenses and education (p.13).

Contractual services, fringe benefits, and full-time salaries were major contributors to the overall cost increases (p.13, p.14). Some areas, such as Social Services in the Miscellaneous category and Fringe Benefits in the Department of Social Services, showed little change or had missing data (p.14). Decreases in costs were uncommon and minor, except in specific areas like Board of Education Pensions (p.13).

In 2020, New York City's spending was largely driven by human resource costs. Full-time salaries and benefits made up 46% of the total budget, while contractual services accounted for another 19%. The rest of the budget was split across many smaller items, but targeted spending went to areas like police pensions and education.

City Of New York
Costs in bUSD by dimension
2020

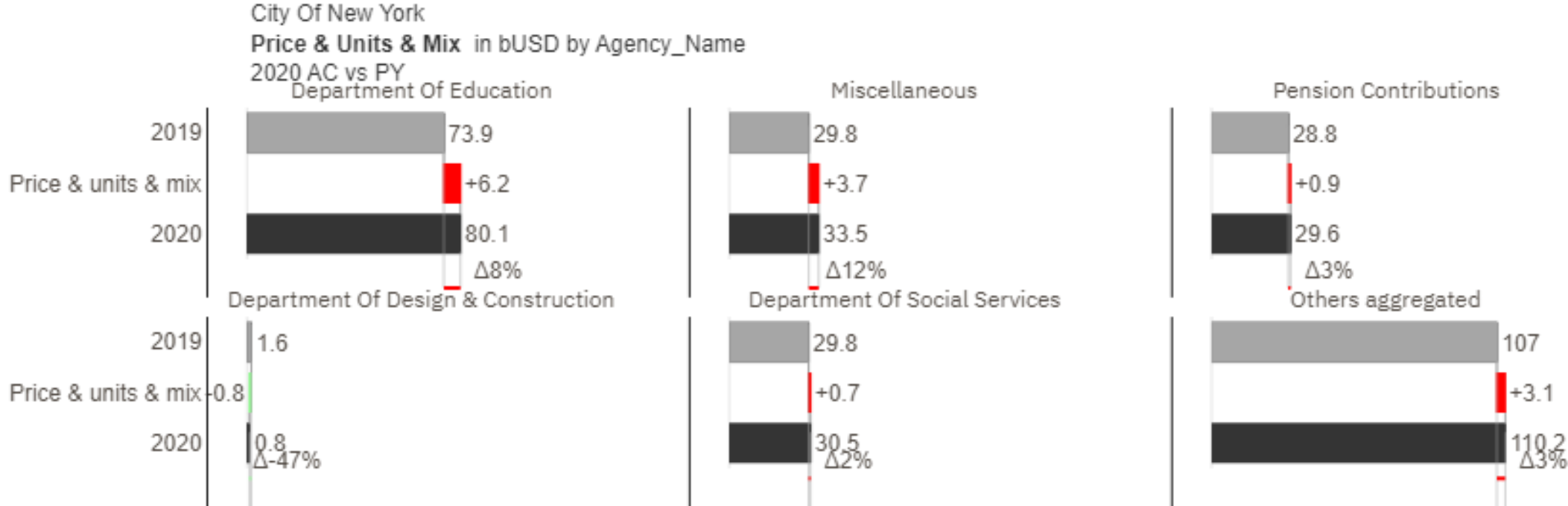


The City of New York's costs increased by \$13.9 billion from 2019 to 2020. The growth was driven by changes in pricing, sales volume, and product mix, suggesting these strategic adjustments were effective despite market challenges.

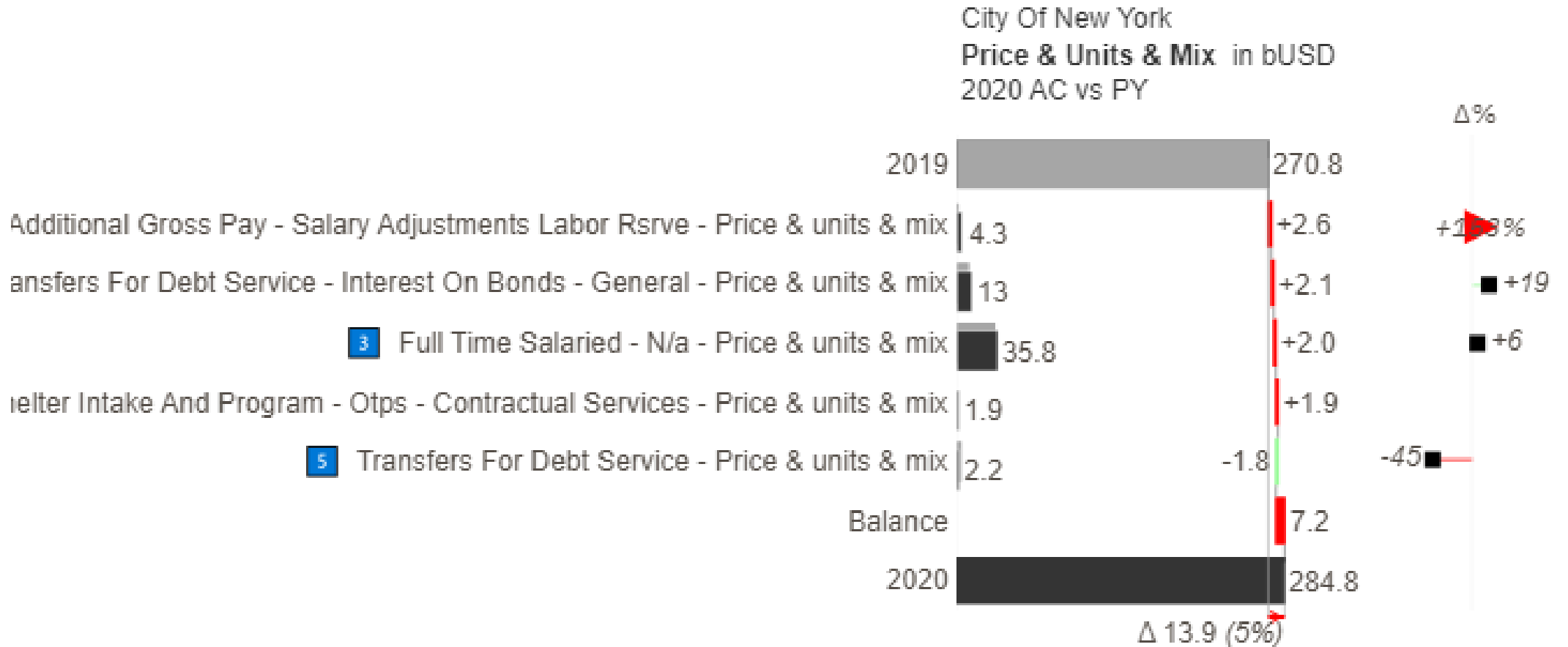
City Of New York Price & Units & Mix in bUSD 2020 AC vs PY



Most New York City agencies saw higher costs from 2019 to 2020. The Department of Education and Miscellaneous category had the biggest increases, both over \$3.0 billion, suggesting significant operational scaling or cost adjustments. The Department of Design & Construction was the only category with lower costs, mainly due to negative variance from price, units, and mix, potentially indicating reduced activity, budget cuts, or efficiency improvements.

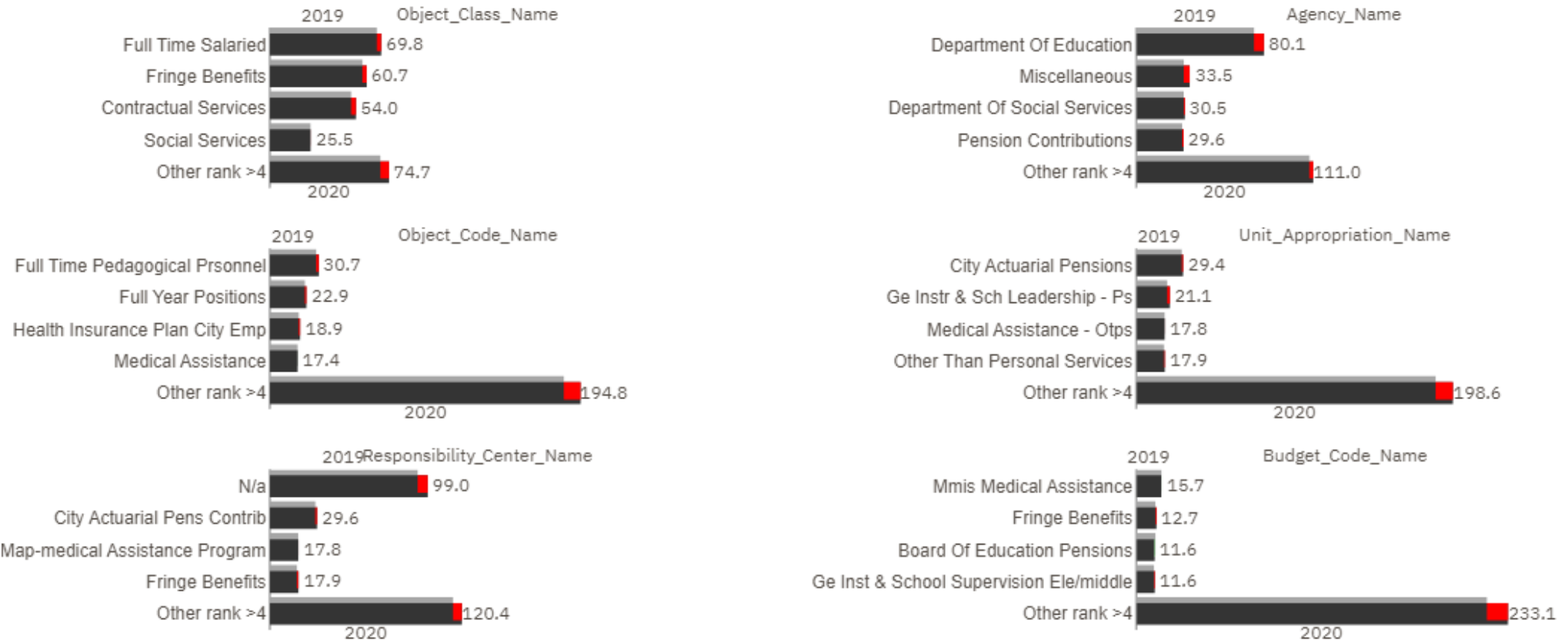


New York City's costs increased by about \$13.9 billion from 2019 to 2020. Major contributors were higher labor costs, debt service, and social services spending, along with a big adjustment in debt service allocations.



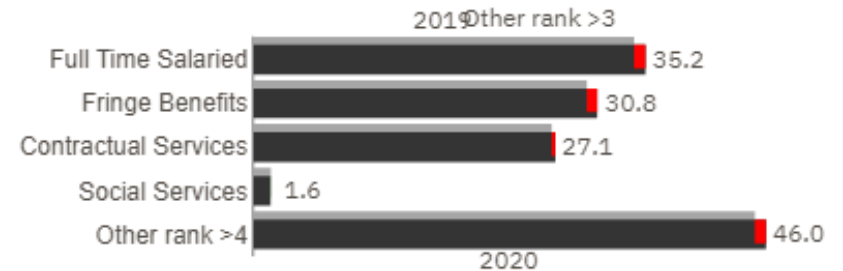
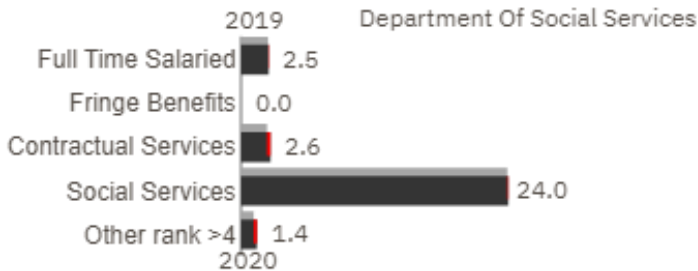
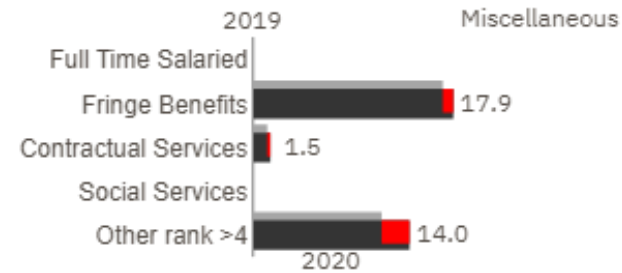
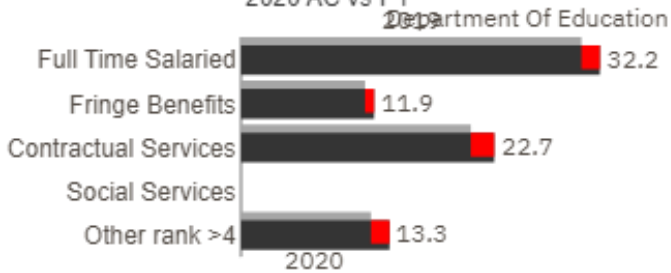
New York City's costs increased significantly from 2019 to 2020, especially in contractual services, fringe benefits, and full-time salaries. The Department of Education had the highest increase at around \$6.2 billion (8%), with most of the rises in personnel-related expenses and education. Decreases were uncommon and minor, except in specific areas like Board of Education Pensions.

City Of New York
Costs in bUSD by dimension
2020 AC vs PY



New York City saw rising costs across most agencies and categories from 2019 to 2020, with the biggest jumps in "Other rank >4" and "Contractual Services". The Department of Education and Miscellaneous agencies had the largest increases in dollar terms. Some areas, like Social Services in Miscellaneous and Fringe Benefits in the Department of Social Services, showed little change or had missing data. Contractual and full-time salaried expenses were major drivers of the overall cost increases.

City Of New York
 Costs in bUSD Agency_Name by Object_Class_Name
 2020 AC vs PY



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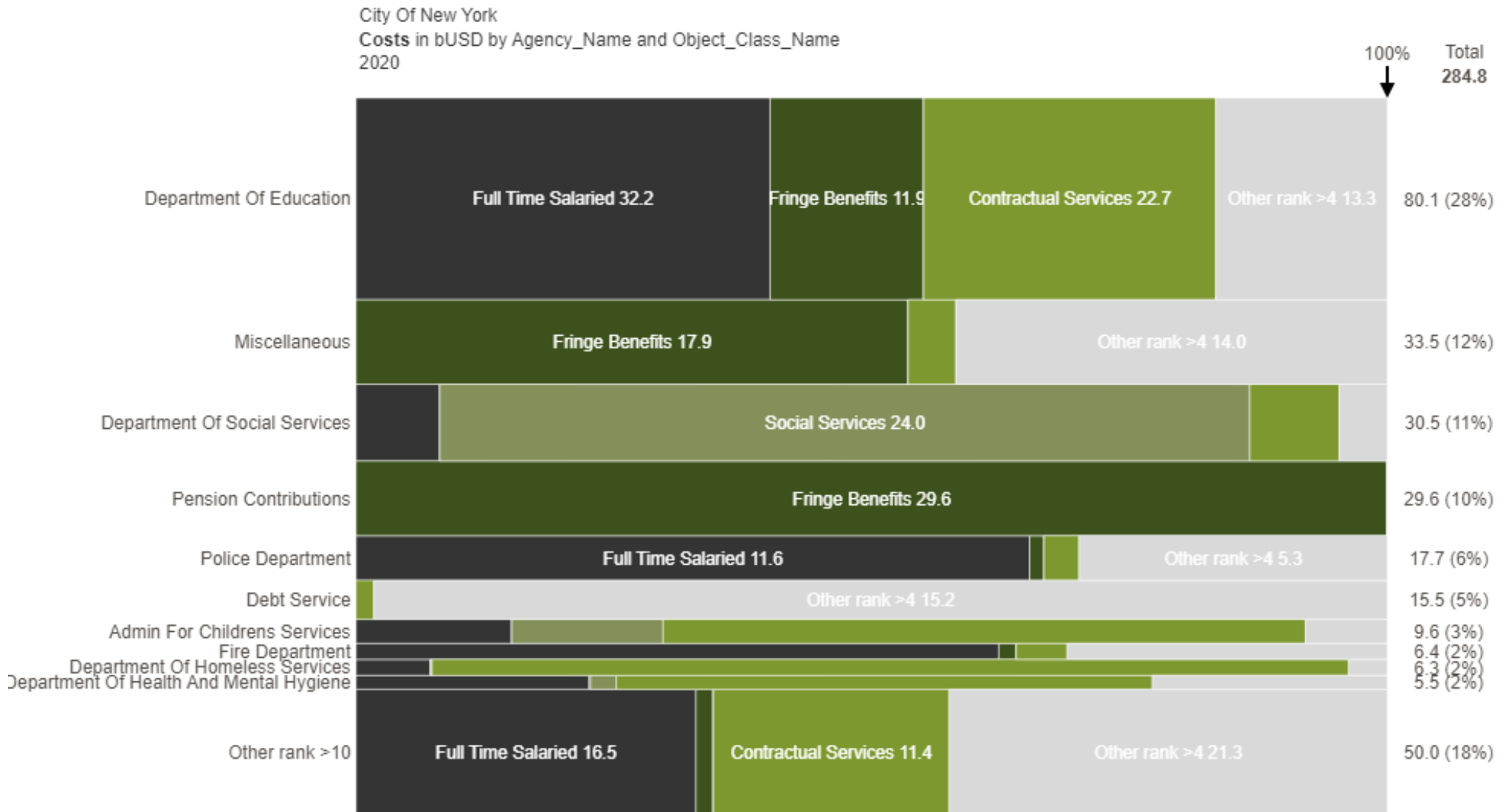
New York City's total expenditure in 2020 was approximately \$284.8 billion, with the Department of Education having the highest expenditure at around \$80.1 billion, about 28% of the city's total (p.17). The city's expenditures were structured into four main categories: 'N/a', 'City Actuarial Pens Contrib', 'Fringe Benefits', and 'Other rank >3' (p.18). Major expense categories included 'Full Time Salaried' at \$69.8 billion, 'Other rank >4' at \$74.7 billion, and 'Fringe Benefits' at roughly \$60.7 billion (p.17).

The Department of Education allocated 40% of its budget to 'Full Time Salaried' positions (p.17) and had the highest total expenditure under 'N/a' at \$80.1 billion (p.18). The Police Department spent a significant 65% of its budget on 'Full Time Salaried' positions (p.17), while the Police and Fire Departments showed substantial personnel costs under 'Other rank >3' (p.18).

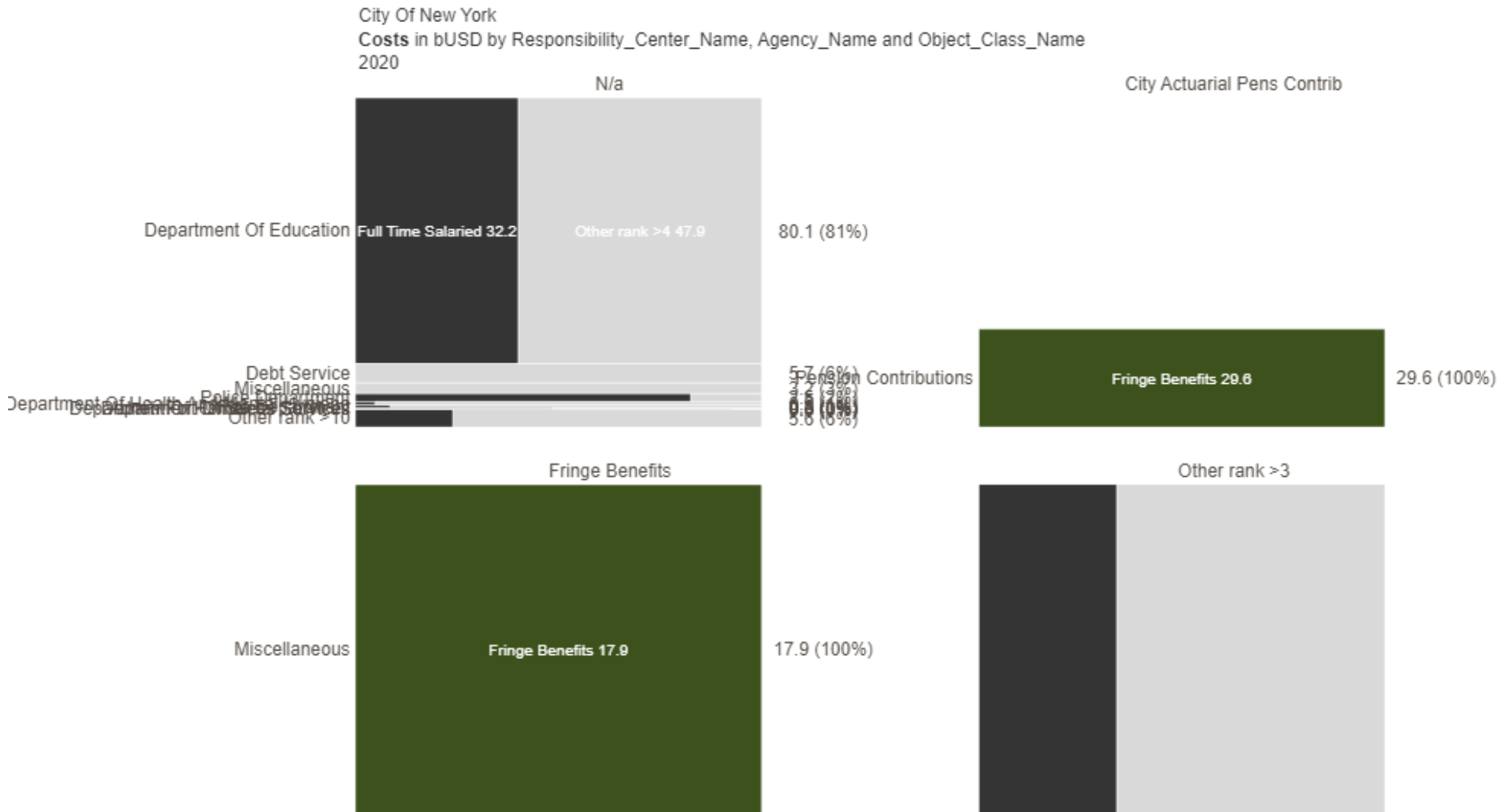
New York City saw an average Costs Growth Rate of 5.0% across all categories in 2020, with Additional Gross Pay having the most significant growth at 24.0% (p.19). The Department of Education saw the highest growth in Additional Gross Pay at 61.0%, along with increases in Fixed & Miscellaneous Charges, Supplies and Materials, and Contractual Services (p.20).

The city had major costs across various agencies and categories, with the Department of Education spending \$22.7 billion on contractual services and \$11.9 billion on fringe benefits (p.21). The Department of Social Services spent the most on social services at \$24.0 billion (p.21) and showed considerable costs, particularly in 'Social Services' (\$17.5 billion) (p.22). Pension Contributions incurred large 'Fringe Benefits' expenditures (\$29.6 billion) (p.21, p.22), while Debt Service had significant costs in 'Other rank >4' (\$9.7 billion) (p.22).

New York City's total expenditure in 2020 was approximately \$284.8 billion. The Department of Education had the highest expenditure at around \$80.1 billion, about 28% of the city's total. Major expense categories included 'Full Time Salaried' at \$69.8 billion, 'Other rank >4' at \$74.7 billion, and 'Fringe Benefits' at roughly \$60.7 billion. The Department of Education allocated 40% of its budget to 'Full Time Salaried' positions. 'Pension Contributions', at about \$29.6 billion, was entirely allocated to 'Fringe Benefits'. The Police Department spent a significant 65% of its budget on 'Full Time Salaried' positions. 'Debt Service' primarily went to 'Other rank >4', accounting for 98% of its budget.

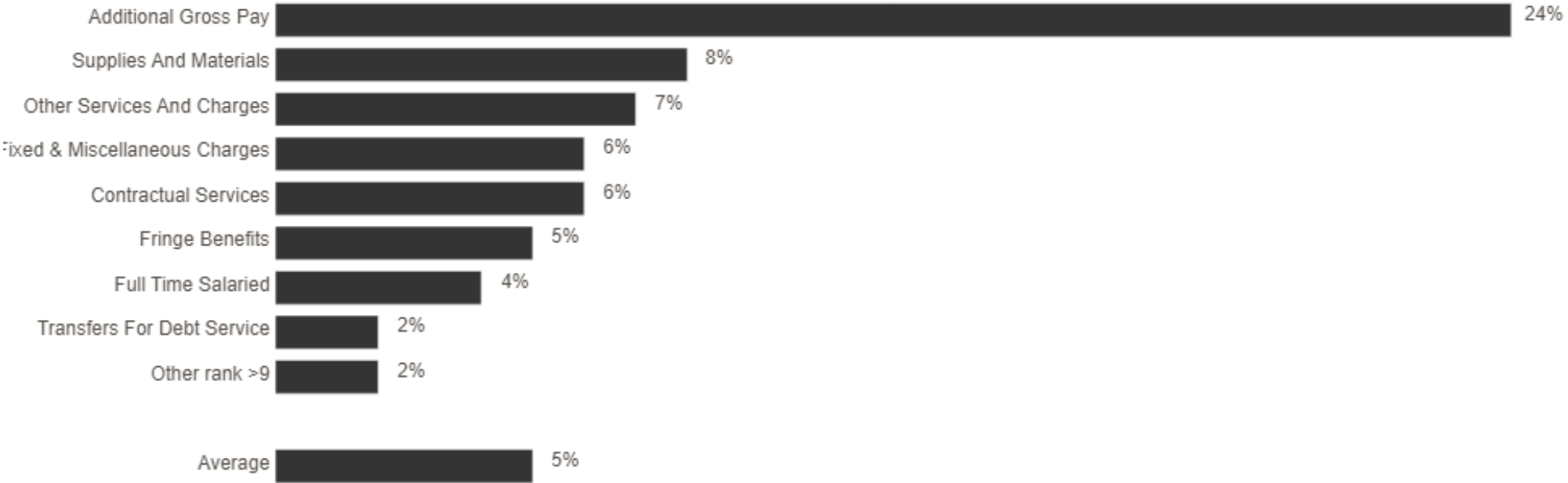


The City of New York's 2020 expenditures were structured into four main categories: 'N/a', 'City Actuarial Pens Contrib', 'Fringe Benefits', and 'Other rank >3'. The Department of Education had the highest total expenditure under 'N/a' at \$80.1 billion, with 40% allocated to 'Full Time Salaried'. 'City Actuarial Pens Contrib' and 'Fringe Benefits' were dominated by pension contributions and miscellaneous fringe benefits, accounting for \$29.6 billion and \$17.9 billion respectively. 90% of the total citywide full-time salaried expenses were in the Department of Education under 'N/a'. The Police and Fire Departments showed significant 'Full Time Salaried' allocations under 'Other rank >3', indicating substantial personnel costs.



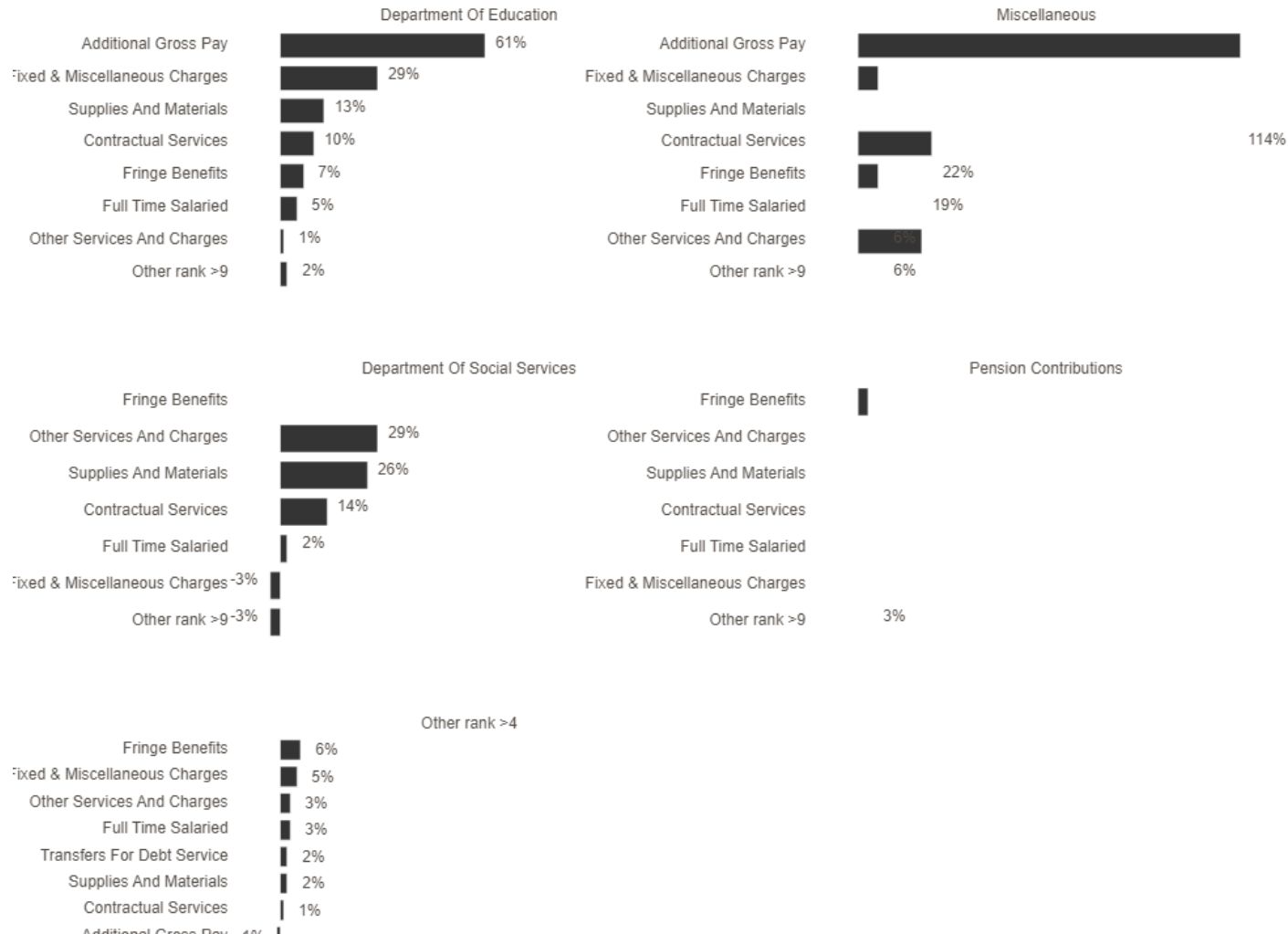
New York City saw an average Costs Growth Rate of 5.0% across all categories in 2020. Additional Gross Pay had the most significant growth at 24.0%, much higher than the average. Supplies And Materials and Other Services And Charges also showed higher growth rates at 8.0% and 7.0% respectively. Contractual Services and Fixed & Miscellaneous Charges grew by 6.0%, slightly above average. Fringe Benefits matched the average at 5.0%. Full Time Salaried and the combined category of Other rank >9, along with Transfers For Debt Service, grew by 4.0% and 2.0% respectively, showing less change compared to other categories.

City Of New York
Costs Growth Rate in USD by Object_Class_Name
2020



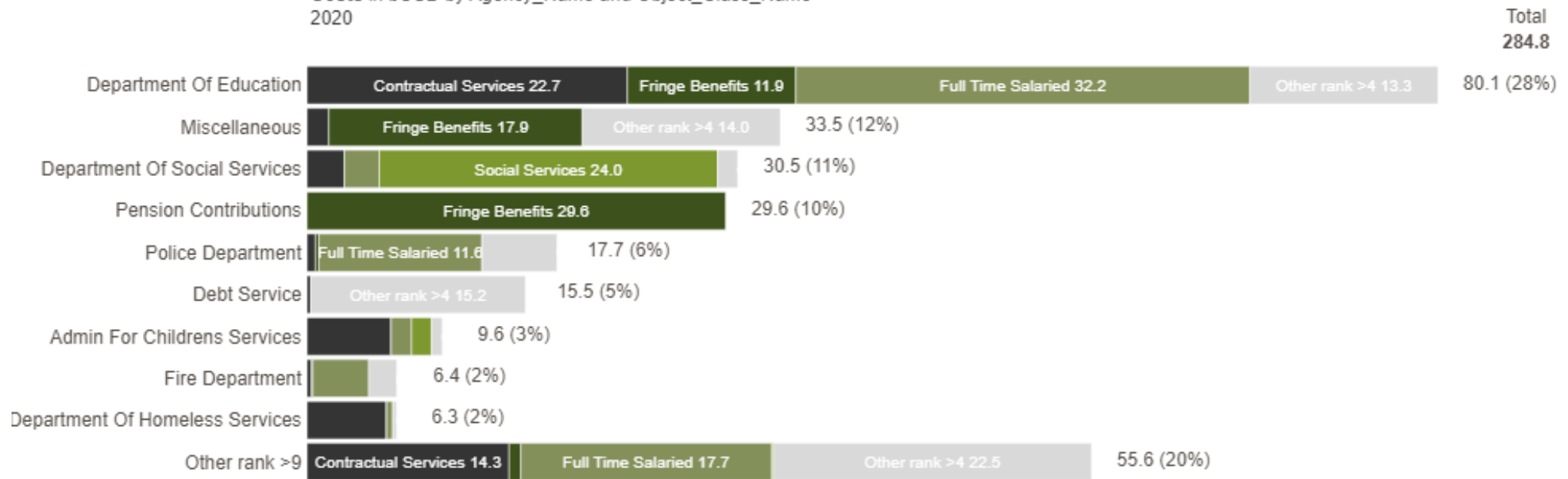
The Department of Education saw the highest growth in Additional Gross Pay at 61.0%, with increases in Fixed & Miscellaneous Charges (29.0%), Supplies and Materials (13.0%), and Contractual Services (10.0%). Miscellaneous had very high growth in Additional Gross Pay at 114.0%, along with increases in Contractual Services (22.0%) and Other Services And Charges (19.0%). The Department of Social Services had the highest growth in Other Services And Charges at 29.0% and an increase in Supplies and Materials at 26.0%, but decreases in Other rank >9 (-3.0%) and Fixed & Miscellaneous Charges (-3.0%). Fringe Benefits grew by 3.0% in Pension Contributions. Other rank >4 showed increases ranging from 1.0% to 6.0% across object classes, with decreases in Social Services (-2.0%) and Additional Gross Pay (-1.0%).

City Of New York
 Costs Growth Rate in USD by Agency_Name and Object_Class_Name
 2020

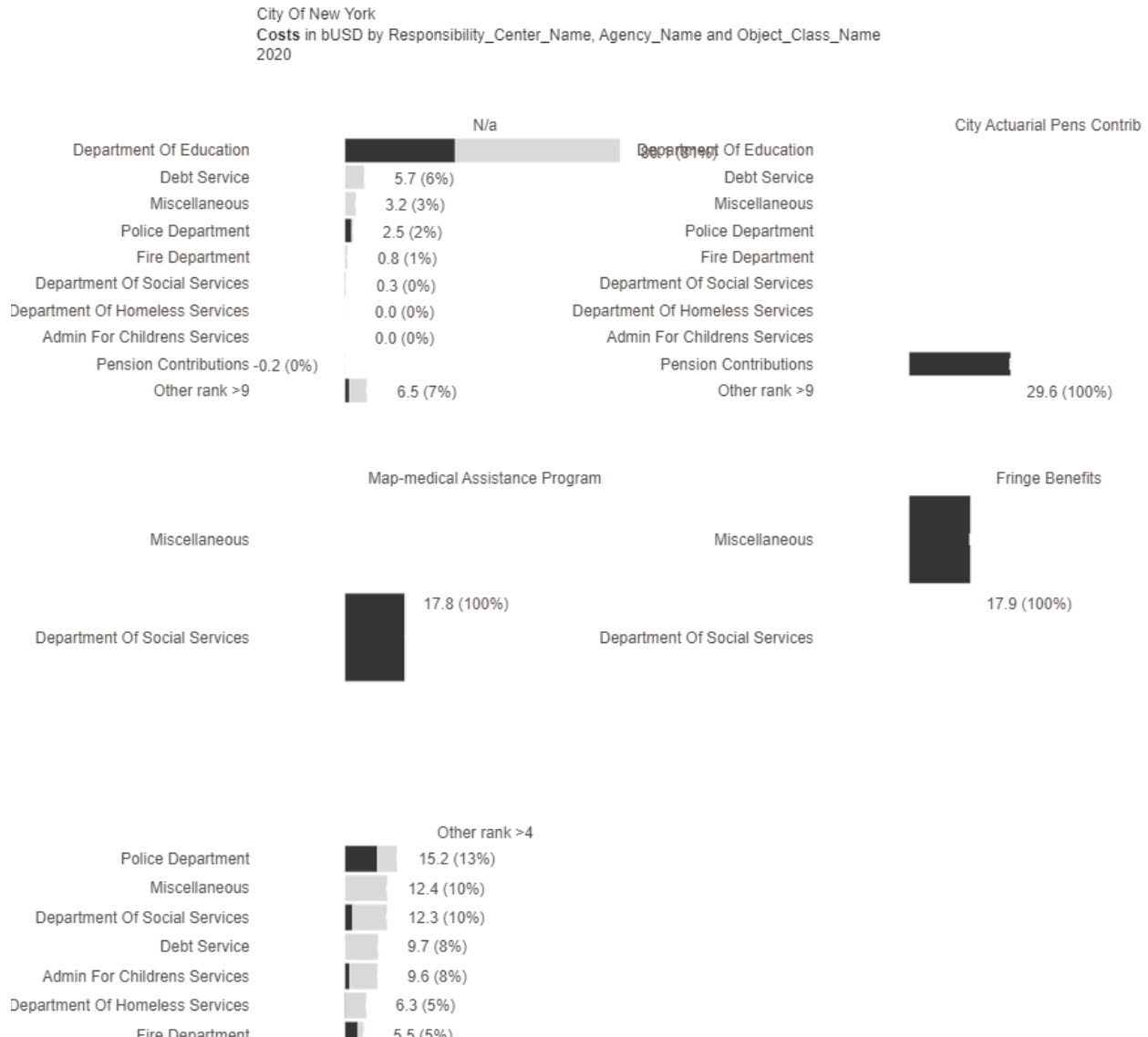


The City of New York had major costs across various agencies and categories in 2020. The Department of Education spent \$22.7 billion on contractual services and \$11.9 billion on fringe benefits. The Department of Homeless Services spent \$5.6 billion on contractual services. Miscellaneous categories had fringe benefit costs of \$18.0 billion. The Department of Social Services spent the most on social services at \$24.0 billion. Pension contributions were the single highest expenditure at \$29.7 billion for fringe benefits. The Debt Service agency allocated \$15.2 billion to 'Other rank >4'.

City Of New York
 Costs in bUSD by Agency_Name and Object_Class_Name
 2020



The City of New York's 2020 expenditures showed a significant investment in education and social services. The Department of Education had the highest expenditure in 'Full Time Salaried' (\$32.2 billion) and 'Other rank >4' (\$47.9 billion) categories. The Department of Social Services also showed considerable costs, particularly in 'Social Services' (\$17.5 billion). Pension Contributions incurred large 'Fringe Benefits' expenditures (\$29.6 billion), while Debt Service had significant costs in 'Other rank >4' (\$9.7 billion). The 'Miscellaneous' category showed considerable expenses in both 'Other rank >4' and 'Fringe Benefits'. The Fire Department and Police Department had notable expenditures in 'Full Time Salaried' and 'Other rank >4' categories, with the Police Department at \$9.5 billion in 'Full Time Salaried'.



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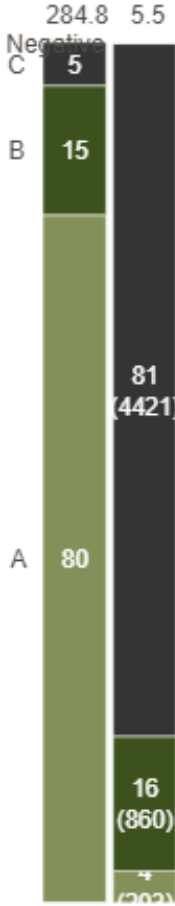
The analysis of New York City's budget reveals a significant concentration of costs, with just 3.7% of Budget Code Names accounting for 80% of the total expenditure. This high dependency on a small number of codes presents both opportunities for optimization and challenges in risk management and resource allocation (p.25). Most of the city's units have costs under \$100 million and growth rates below 10%, indicating modest growth. However, some smaller units with costs below \$100 million exhibit growth rates as high as 100%, suggesting potential high growth opportunities that could be capitalized on through targeted resource allocation (p.26).

The city's costs and growth rates exhibit significant variability across expenditure categories. Full Time Salaried and Contractual Services show limited growth for most entities, with rates mostly under 1% despite higher total costs. In contrast, Fringe Benefits demonstrates both high costs and growth rates, possibly indicating more dynamic activity or changes in this area (p.27).

The imbalance in cost concentration and growth rates across Budget Code Names and expenditure categories highlights the need for targeted financial planning and resource allocation. By focusing on the small number of high-impact codes and the high-growth, low-cost units, the city can optimize its budget and capitalize on growth opportunities (p.25, p.26). Furthermore, understanding the variability in costs and growth rates across expenditure categories can help guide strategic decision-making and enable the city to adapt to changing financial dynamics (p.27).

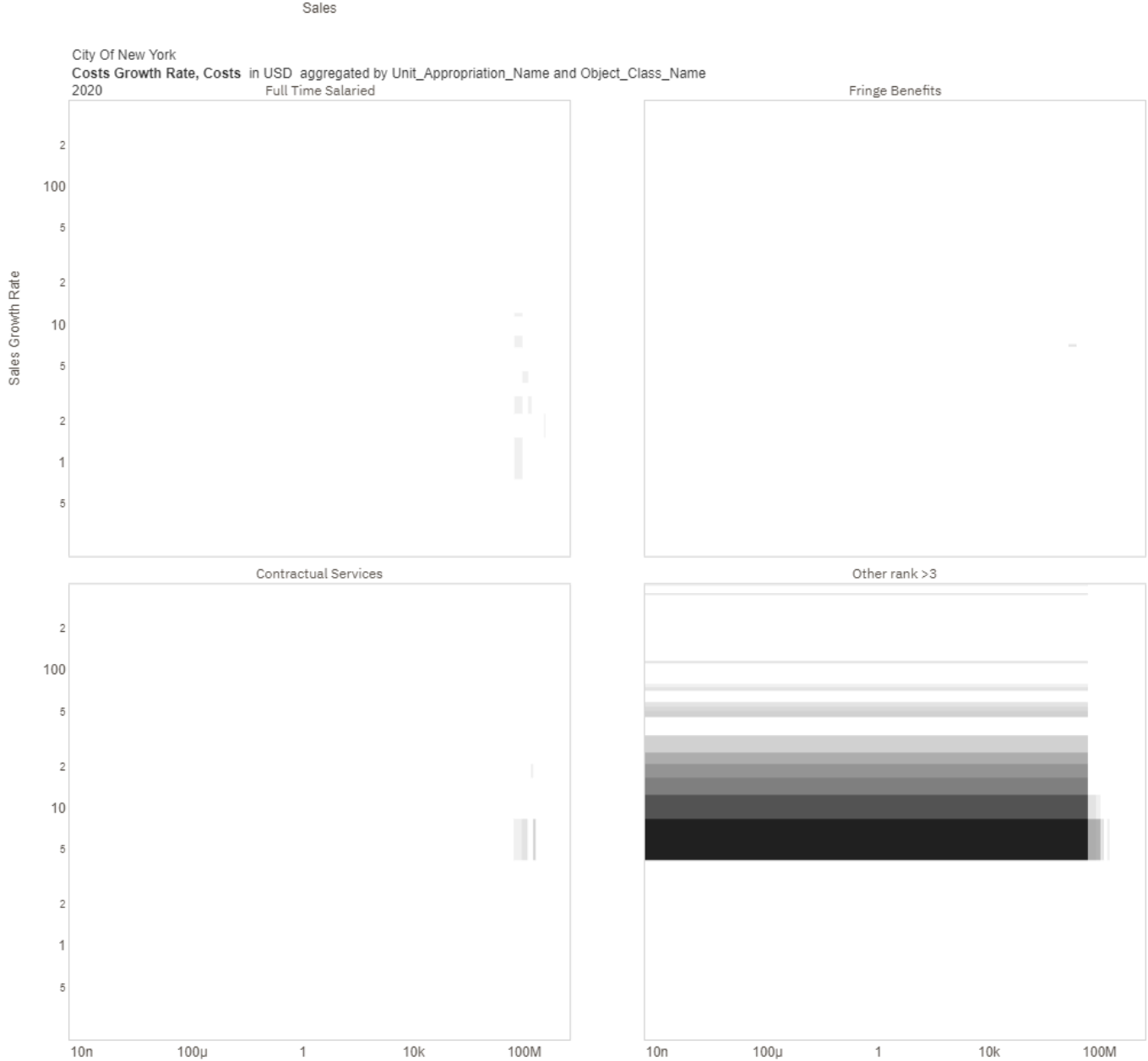
Just 3.7% of New York City's Budget Code Names account for 80% of the total costs. This intense concentration indicates a high dependency on a small number of budget codes. In contrast, the majority of Budget Code Names (80.6%) contribute only 5% to the total costs, suggesting these codes are significantly less impactful individually. This imbalance presents both opportunities for optimization and challenges in terms of risk management and resource allocation.

City Of New York
 ABC by sorted Budget_Code_Name Costs in I
 2020



Sales # of Budget_Code_Names

New York City's costs and growth rates vary significantly across expenditure categories. Full Time Salaried and Contractual Services show growth rates mostly under 1%, despite higher total costs, suggesting limited growth for most entities here. In contrast, Fringe Benefits has both high costs and growth rates, possibly indicating more dynamic activity or changes. This variability points to areas of high activity and stagnation, enabling targeted financial planning.



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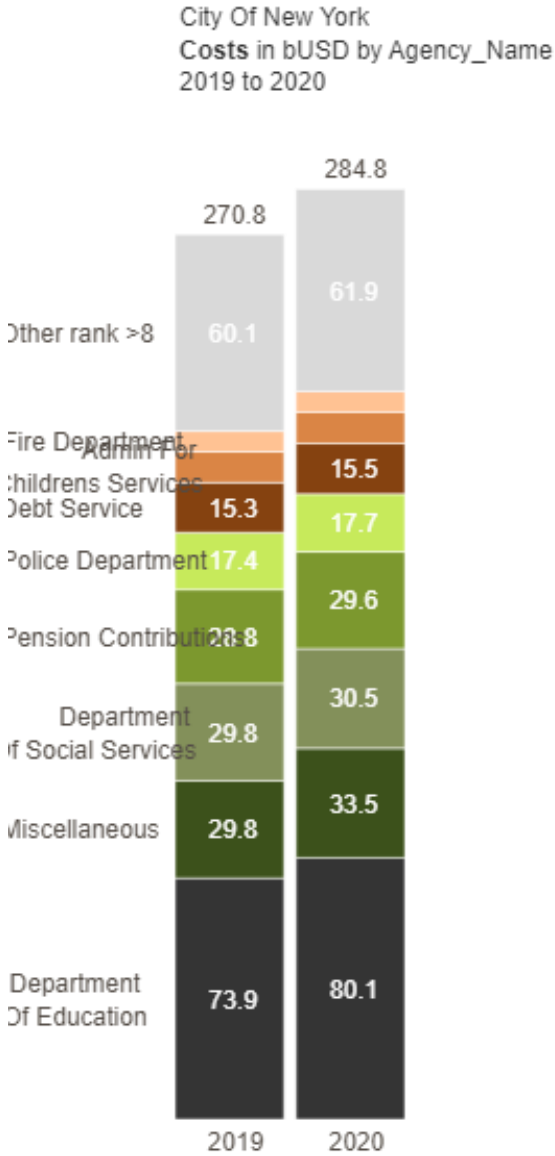
Backup

New York City's costs increased across various departments from 2019 to 2020, with an overall growth rate of 5.1% (p.31). The Department of Education and the Miscellaneous category had the most significant increases, while the Fire Department's costs rose only modestly (p.30). City Actuarial Pensions had the lowest growth at 3.0%, while Fringe Benefits and Public Assistance - Otps grew 5.5% and 6.0% respectively (p.31).

The "Other rank >8" category had the highest 6.3% growth rate and exceeded \$140.0 million each year, making it a major cost driver (p.31). However, Redemption Of Funded Debt costs fell sharply by 24.5%, potentially freeing up resources for other needs or increased costs elsewhere (p.32).

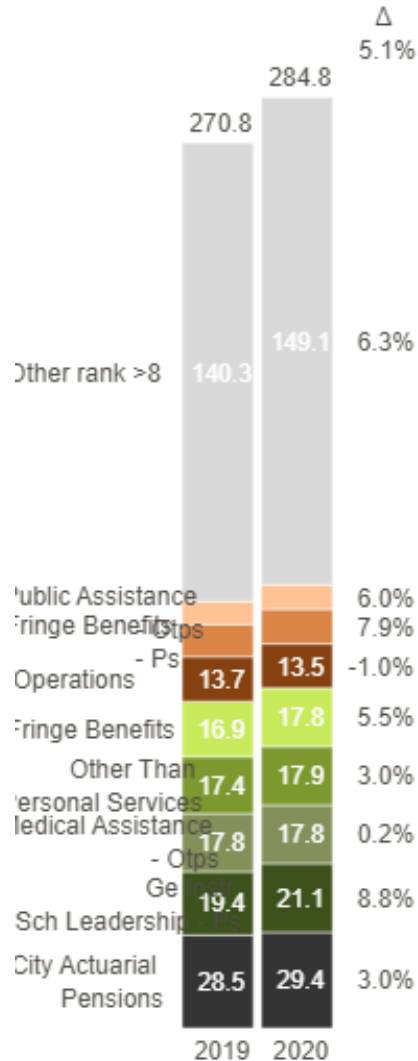
The City of New York's costs increased with an overall CAGR of 4.2% from 2019 to 2020 (p.33). The Department of Education saw the most significant increase of over \$5.0 billion, while the Fire Department slightly decreased costs (p.33). The Police Department experienced a modest 1.3% growth, lower than other agencies, and the Admin For Childrens Services saw a reduction in costs with a negative CAGR of -0.4% (p.33).

New York City's costs increased across various departments from 2019 to 2020. The Department of Education and the Miscellaneous category had the most significant increases. The Fire Department's costs rose only modestly.

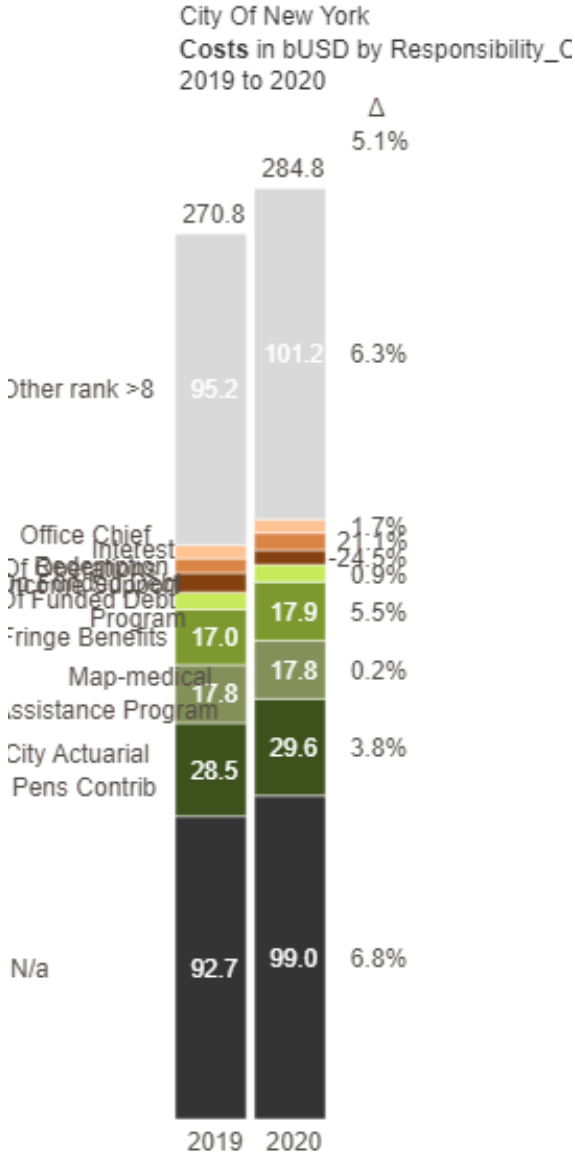


New York City saw a 5.1% overall cost increase from 2019 to 2020. City Actuarial Pensions had the lowest growth at 3.0%, while Fringe Benefits and Public Assistance - Otps grew 5.5% and 6.0% respectively. The "Other rank >8" category had the highest 6.3% growth rate and exceeded \$140.0 million each year, making it a major cost driver.

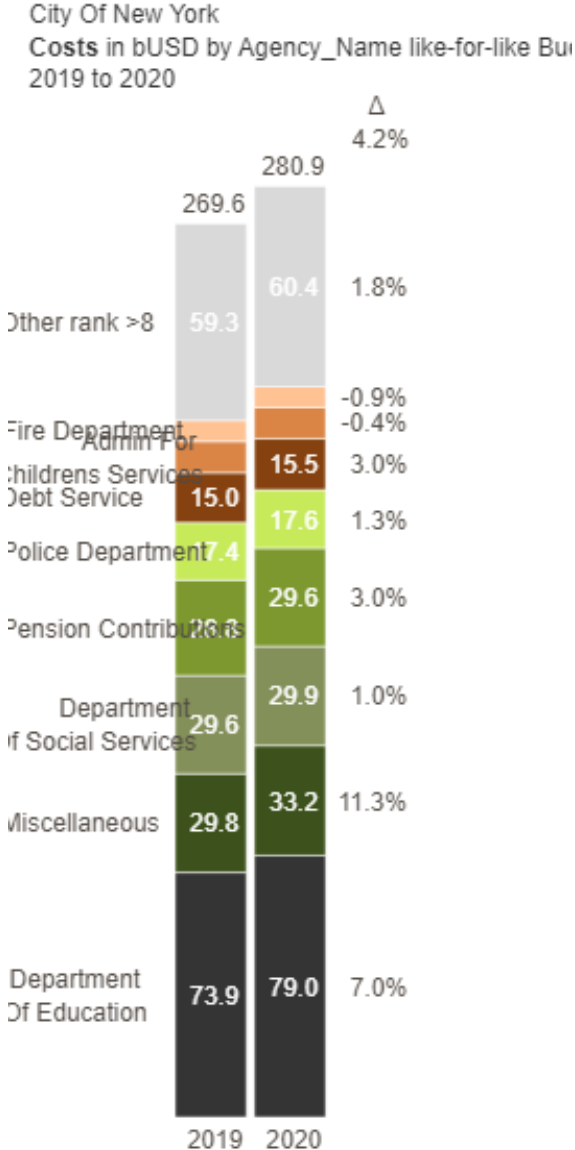
City Of New York
 Costs in bUSD by Unit_Appropriation_Name
 2019 to 2020



New York City's expenditures rose across most areas from 2019 to 2020, with an overall growth rate of 5.1%. City Actuarial Pension Contributions and Fringe Benefits grew by 3.8% and 5.5% respectively, while the "Other rank >8" category increased by 6.3%. However, Redemption Of Funded Debt costs fell sharply by 24.5%, potentially freeing up resources for other needs or increased costs elsewhere.



The City of New York's costs increased with an overall CAGR of 4.2% from 2019 to 2020. Most departments and agencies experienced rising expenditures, with the Department of Education seeing the most significant increase of over \$5.0 billion. The Miscellaneous category also increased notably. The Fire Department slightly decreased costs, while the Police Department experienced a modest 1.3% growth, lower than other agencies. The Admin For Childrens Services saw a reduction in costs with a negative CAGR of -0.4%.



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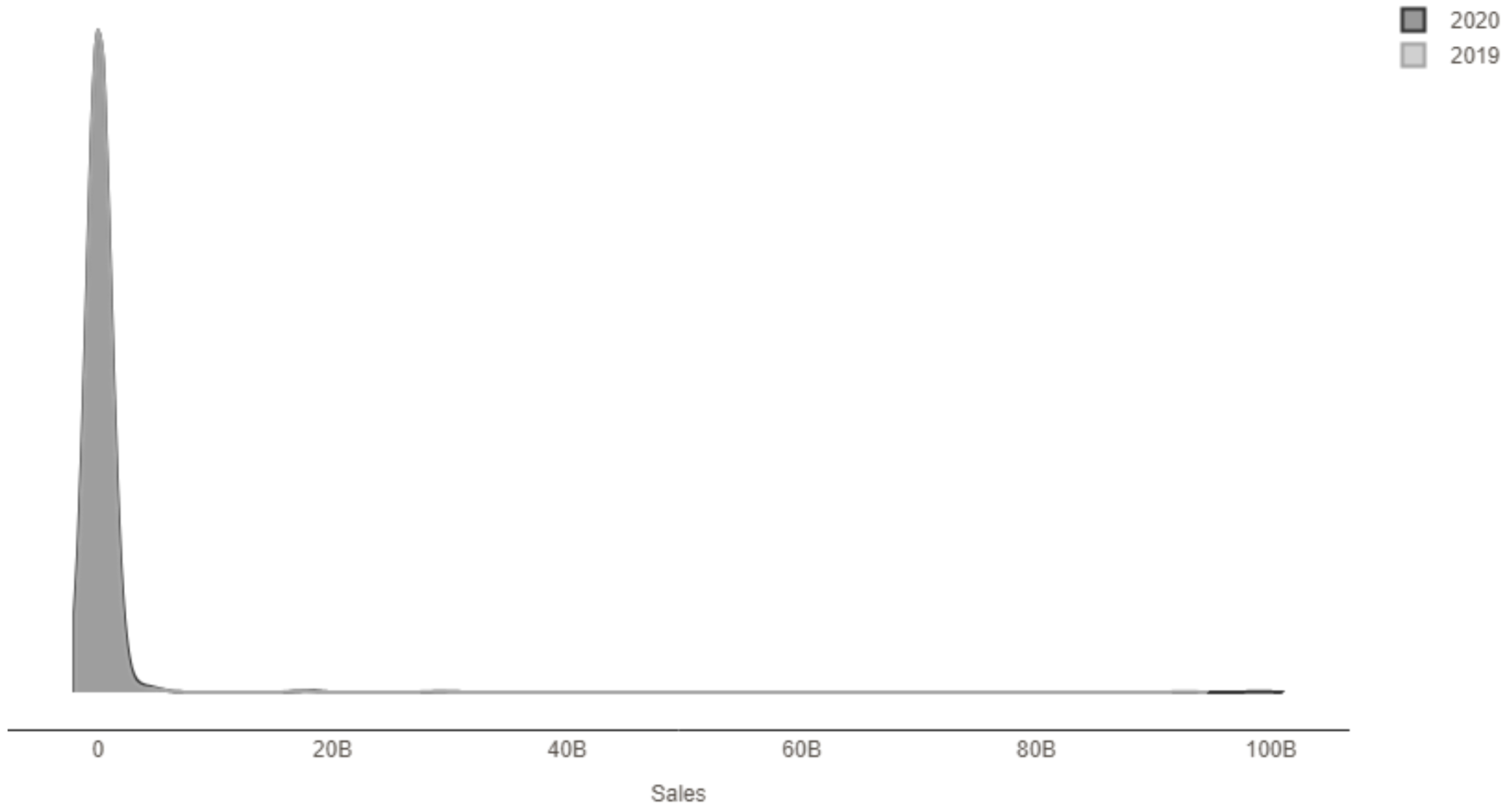
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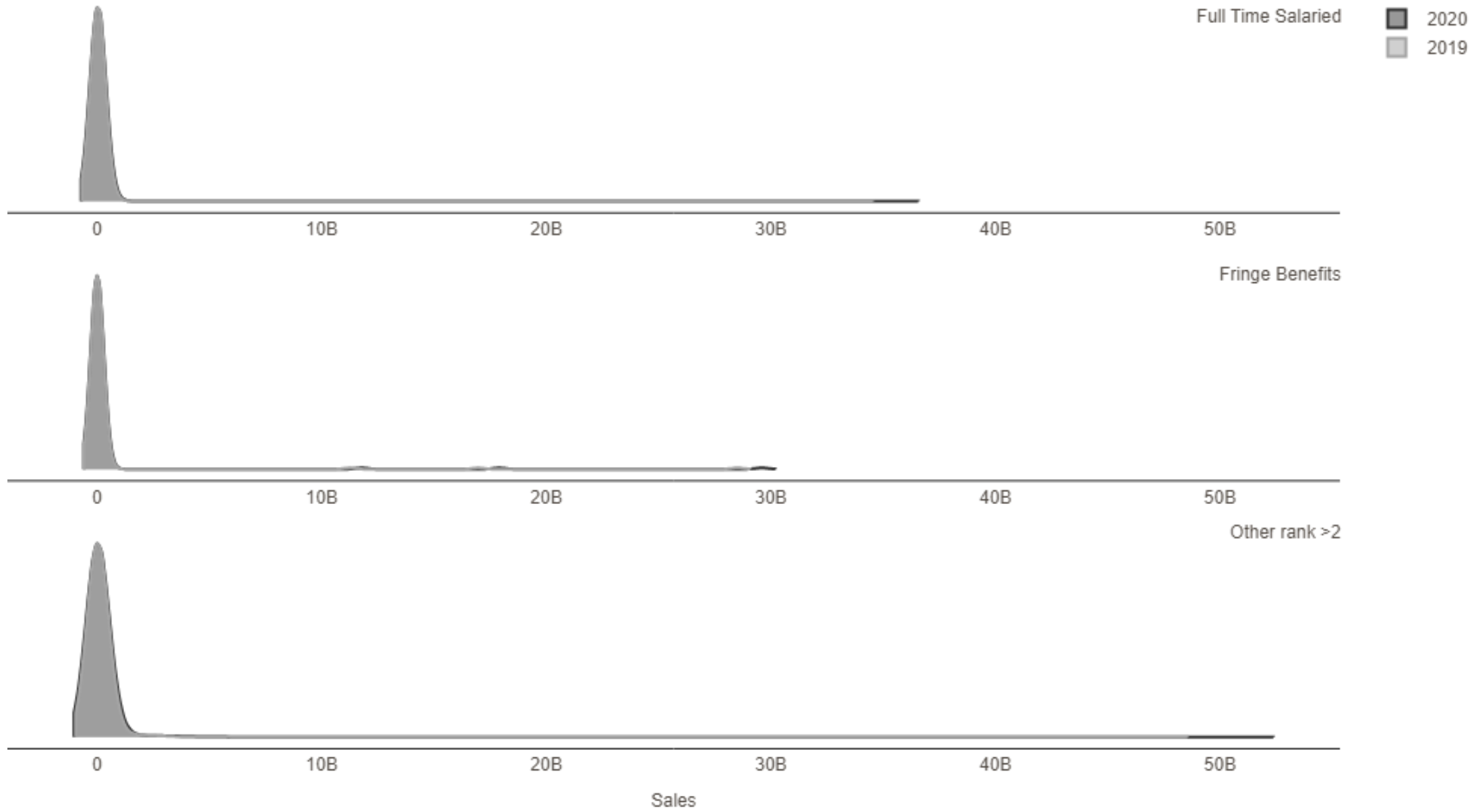
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City Of New York
Costs in USD, aggregated by Responsibility_Center_Name
2019 vs 2020



City Of New York
Costs in USD, aggregated by Responsibility_Center_Name by Object_Class_Name
2019 vs 2020



City Of New York
ABC by sorted Budget_Code_Name Costs in USD
2020

