

# The Mayor's Management Report:

## *Short on Unit Cost Measures*

*By Mariana Alexander*

**N**ext week the Mayor's Office of Operations will publish the Preliminary Mayor's Management Report (MMR) for fiscal year 2017, which is intended to inform the public about how well the City delivers services. The MMR includes thousands of indicators, but most relate to the volume or quality of services with little revealed about how efficiently those services are provided. Efficiency measures show the relationship between inputs such as funding, staff, and equipment, and outputs which express the nature and amount of work completed. "Unit cost" indicators in particular illustrate how much is spent per unit of service and are especially useful because they are an easily understood way to assess the cost of services. Unit cost indicators enhance accountability, inform operational changes, and highlight ways to increase efficiency. Three important points emerge from an assessment of the extent to which efficiency is currently addressed in the MMR:

- The MMR has few unit cost measures, and the number has declined in recent years.
- More unit cost indicators can be created with currently reported data.
- City government should pursue a comprehensive strategy to promote consistent use of unit cost measures across more agencies.



## Limited Measurement of Efficiency

The most recent MMR, covering fiscal year 2016, contained only 35 unit cost indicators reported by 10 agencies—out of the more than 2,000 indicators and 42 agencies included in the report. (See Table 1.) Moreover, as Figure 1 shows, the numbers of unit cost measures and agencies reporting them have declined under the de Blasio administration.<sup>1</sup>

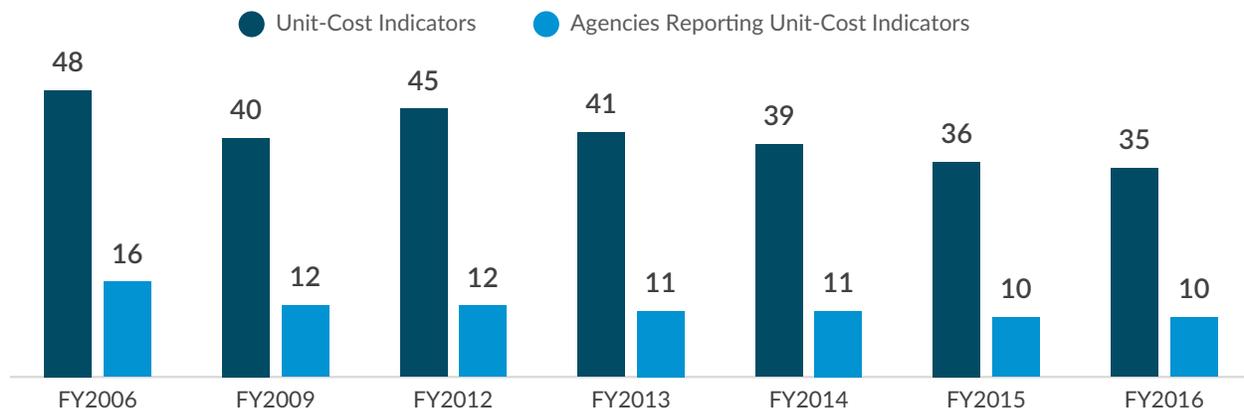
**Table 1: Agencies Reporting Unit Cost Indicators in the FY2016 MMR**

<u>1 to 2 Indicators</u>	<u>3 to 4 Indicators</u>	<u>5 or more Indicators</u>
City University of New York (1)	Transportation (4)	Children's Services (7)
Citywide Admin. Services (2)	Fire (3)	Education (6)
Homeless Services (2)	School Construction (3)	Sanitation (6)
NYC Housing Authority (1)		

Source: New York City Mayor's Office of Operations, *Mayor's Management Report* (September 2016).

Between fiscal years 2012 and 2016, only 7 of the 35 unit cost indicators in the most recent MMR suggest steadily increasing efficiency; in contrast, 23 show decreasing efficiency, and 5 are inconclusive. (See Table 2.) For example, the cost to the Fire Department per ambulance tour per day grew 7.7 percent from \$1,799 in fiscal year 2012 to \$1,937 in 2016. The Department of Citywide Administrative Services on the other hand decreased the average cost of training per city employee 56 percent from \$253 to \$112 over the same period. Not all indicators tell a clear story. For instance, spending per inch of snow removed by the Department of Sanitation dropped by 60 percent between fiscal years 2012 and 2013 but has climbed steadily since then from \$1,602 to \$3,288 per inch in fiscal year 2016. This is related to the amount of snowfall in a given year, but the costs are also driven by the city's unique snow removal practices.<sup>2</sup>

**Figure 1: Number of Unit Cost Indicators Included in the MMR and Number of Participating Agencies, Selected Fiscal Years**



Source: New York City Mayor's Office of Operations, *Mayor's Management Report* (Fiscal Years 2006 to 2016 editions).

**Table 2: Recent Trends of Unit Cost Indicators Included in the FY2016 MMR**

**Steadily Decreasing Unit Costs - 7 Indicators**

<b>Citywide Admin. Services</b>	Cost of training per city employee
<b>Admin. for Children's Services</b>	Child care spending per child (Legally Exempt Voucher); Child care spending per child (Contract Family Child Care)
<b>Transportation</b>	In-house cost of asphalt per ton; Vendor cost of asphalt per ton
<b>NYC Housing Authority</b>	Management cost per dwelling
<b>School Construction Authority</b>	New school construction cost per square foot for Middle Schools

**Steadily Increasing Unit Costs - 17 Indicators**

(compound annual growth rate greater than 2 percent)

<b>Admin. for Children's Services</b>	EarlyLearn spending per child in Contract Centers; Child care spending per child (Center Based Child Care Vouchers); Average daily cost per youth per day in juvenile detention centers; Health care costs per youth per day in juvenile detention centers.
<b>CUNY</b>	Spending per student at community colleges
<b>Homeless Services</b>	Cost per day per person in a single adult shelter; Cost per day per family in a family shelter
<b>Education</b>	Average expenditure per student: Overall, Elementary, Middle, High School, and Special Education; Average direct services to school spending per child
<b>Sanitation</b>	Refuse collection cost per ton; Refuse cost per ton (fully loaded); Refuse disposal cost per ton
<b>School Construction Authority</b>	New school construction cost per square foot for Elementary level facilities

**Steadily Increasing Unit Costs - 6 Indicators**

(compound annual growth rate less than 2 percent)

<b>Admin. for Children's Services</b>	Child care spending per child (Family Child Care Vouchers)
<b>CUNY</b>	Spending per student at community colleges
<b>Citywide Admin. Services</b>	Cost of cleaning per square foot of city-owned and operated buildings
<b>Transportation</b>	Cost per passenger ride on the Staten Island Ferry
<b>Fire</b>	Cost of ambulance tour per day; Annual cost per engine company; Annual cost per ladder company

**No Clear Trend - 5 Indicators**

<b>Sanitation</b>	Recycling cost per ton; Recycling collection cost per ton; Removal cost per inch of snow
<b>Transportation</b>	Cost per lane mile resurfaced citywide
<b>School Construction Authority</b>	New school construction cost per square foot for High School level facilities

Note: Indicators that show steadily increasing unit costs are split between those that have a compound annual growth rate of more than 2 percent and those that show less than 2 percent growth. This distinction separates indicators that may have grown at or slightly above inflation from those that grew more rapidly. During this period, the state and local government deflator increased an average of 1.4 percent a year, while consumer inflation, as measured by the CPI-U for the New York area, grew about 1.2 percent. Admin. for Children's Services child care indicators capture the different types of child care subsidies offered to families as described online at <https://www1.nyc.gov/site/acs/early-care/acs-child-care-options.page>.

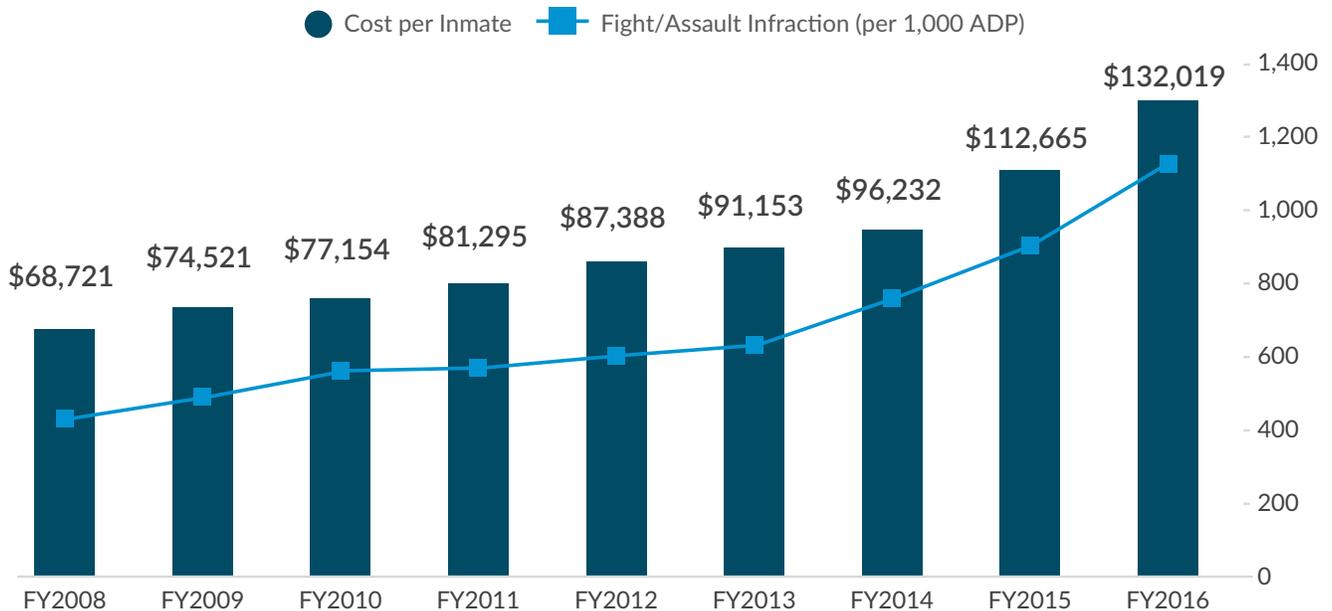
Source: New York City Mayor's Office of Operations, *Mayor's Management Report* (September 2016); U.S. Department of Commerce Bureau of Economic Analysis, *NIPA Tables: Table 1.1.9 Implicit Price Deflators for Gross Domestic Product* (December 22, 2016), [www.bea.gov](http://www.bea.gov); and U.S. Dept. of Labor Bureau of Labor Statistics, *Consumer Price Index - All Urban Consumers* (Series ID CUURA101SA0, CUUSA101SA0) (January 2017), <https://www.bls.gov/data/#prices>.

## More Efficiency Indicators Are Easily Available

More agencies could easily track and report more unit cost measures in the MMR if they made use of data already reported or collected. Three examples are for the Departments of Correction, Environmental Protection, and Parks and Recreation.

**Department of Correction:** New York City Comptroller Scott Stringer recently drew attention to the steadily increasing cost per inmate in city jails. Between fiscal years 2008 and 2016 the cost per inmate increased 92 percent because spending grew while the inmate population declined.<sup>3</sup> (See Figure 2.) Troublingly, the data also indicates that violence in jails became more prevalent over this same period, suggesting that despite the considerable extra investment per inmate, the city's jails were becoming less safe. The average annual cost per inmate used to be included in the MMR, but it was dropped after the fiscal year 2012 report.

**Figure 2: Average Annual Cost per Inmate and Number of Violent Infractions per 1,000 Inmates in the Average Daily Population, Department of Correction, FY2008**

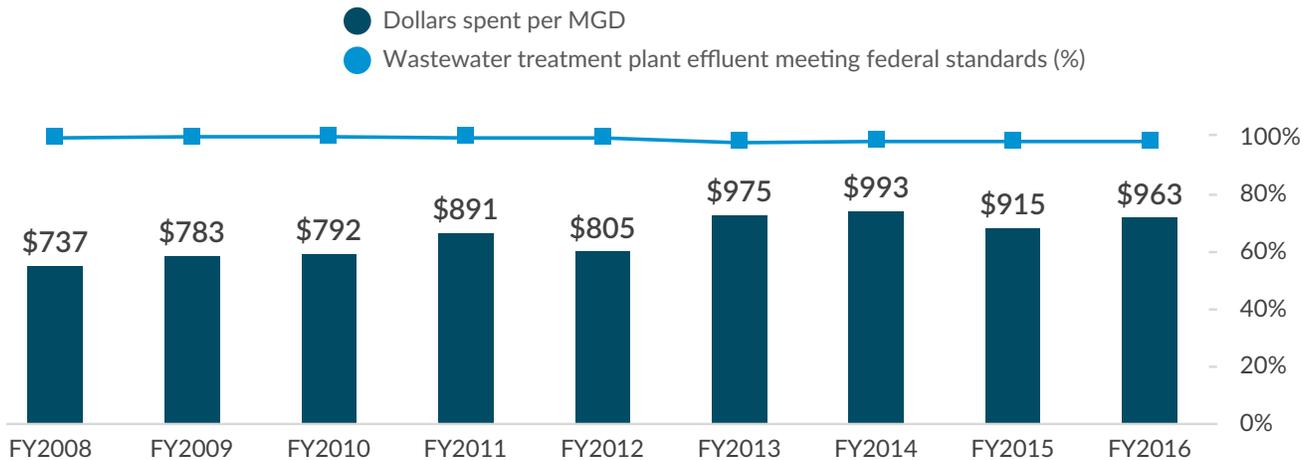


Note: "Fight/Assault Infraction (per 1,000 ADP)" refers to the number of fight and assault infractions processed by the Dept. of Correction Adjudication Unit per 1,000 inmates in the average daily inmate population (ADP).

Source: Office of the Comptroller, City of New York, *NYC Department of Correction: FYs 2007-16 Operating Expenditures, Inmate Population, Cost per Inmate, Staffing Ratios, Performance Measure Outcomes and Overtime* (November 2016).

**Department of Environmental Protection:** Available input and output measures can generate a useful unit cost measure for this agency: the annual cost to treat one million gallons of wastewater at the city's 14 water pollution control plants. As Figure 3 shows, the unit cost has varied, but increased 31 percent between fiscal years 2008 and 2016. Meanwhile, the share of wastewater effluent meeting federal standards has been consistently high, never dipping below 99.5 percent.<sup>4</sup>

**Figure 3: Average Annual Wastewater Treatment Cost per Million Gallons of Water (MGD), Department of Environmental Protection, FY2008-FY2016**

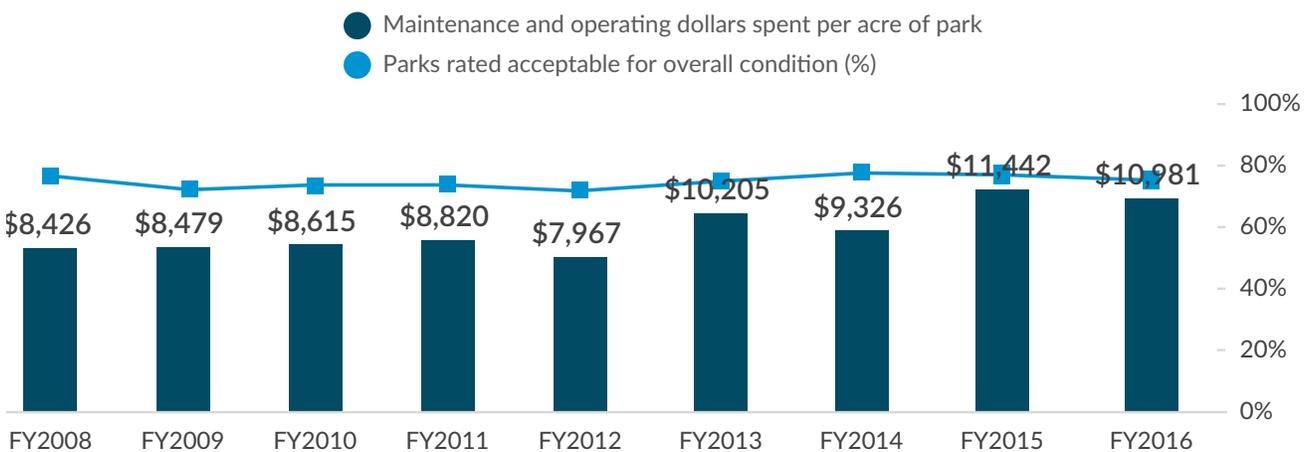


Note: Includes all spending associated with operating water pollution control plants. Fiscal Year 2010 expense was adjusted to exclude a one-time retroactive contract settlement payment of \$230 million. Effluent standards refer to federal standards for suspended solids and biochemical oxygen demand in wastewater leaving New York City treatment plants.

Source: New York City Water & Sewer System, *Comprehensive Annual Financial Report: Fiscal Year 2016* (December 2016), p. 72, and fiscal year 2011 to 2015 editions; New York City Mayor's Office of Operations, *Mayor's Management Report* (September 2016); and The Council of the City of New York, Dept. of Environmental Protection, *Report on the Fiscal Year 2017 Executive Budget* (May 9, 2016), and fiscal year 2011 to 2015 editions.

**Department of Parks and Recreation:** One indicator of this agency's efficiency is the amount it spends to maintain each acre of parkland, with both spending and acreage already reported separately. Figure 4 shows maintenance spending per park acre each year from fiscal years 2008 to 2016. Per acre expenses increased steadily with no discernable improvement in the nearly flat measure of the park conditions.<sup>5</sup>

**Figure 4: Maintenance and Operations Spending per Acre of Park and Overall Condition, Department of Parks and Recreation, FY2008-FY2016**



Note: Condition ratings stem from the The Parks Inspection Program, which assesses park properties along 16 different criteria of quality and safety. The entire site is rated 'unacceptable' if a property fails with respect to 3 or more criteria. Maintenance and Operating dollars include Maintenance and Operating dollars allocated for each borough, as well as dollars centrally allocated and allocated via the Parks Opportunity Program. Acreage data includes all parkland under the auspices of the NYC Dept. of Parks and Recreation.

Source: The Trust for Public Land, *2016 City Park Facts* (April 2016), p. 6; New York City Office of Management and Budget, *Fiscal Year 2017 Adopted Budget*, (June 14, 2016), p. 460 and prior years; New York City Mayor's Office of Operations, *Mayor's Management Report* (September 2016), p. 124.

## Facilitating the Creation of More Unit Cost Measures

Although additional unit cost measures can be assembled using already available data, more extensive development of efficiency measures requires a comprehensive strategy. Four steps are essential to enhancing the ability of municipal managers to gauge and improve efficiency.

### 1. Align Units of Appropriation with service lines

The fiscal year 2016 MMR included for the first time an appendix that presented agency spending for the prior year and budgeted amounts for the current year by Unit of Appropriation (UA).<sup>6</sup> UAs are the subdivisions within agency budgets used by the City Council when appropriating funds for particular agency activities. In practically all instances, however, UAs are broad and do not correspond to specific services. The City Council and Office of Management and Budget have made progress with the creation of the supplemental Budget Function Analysis (BFA), which offers a more detailed division of agency spending. But only 15 agencies are included in the report, and some categories are still too broad to support development of unit cost measures.

### 2. Dovetail service quality indicators with unit cost measures

Increasing unit costs are not necessarily bad if they are accompanied by improvements in service quality, and lower unit costs are not necessarily good if accompanied by lower service quality. To avoid missing this context unit cost measures should be linked to **outcomes** as well as outputs. Outputs refer to the amount of work completed (number of street sweeper runs), while outcomes capture progress toward a greater desired end (having a cleaner city). Inputs can be linked to outcomes by dovetailing efficiency measures with indicators of service quality. For example, the MMR indicates that between fiscal years 2012 and 2016 there was a 22 percent increase in spending per student by the City University of New York. This could indicate a loss in efficiency, but it may denote improved service if accompanied by higher graduation rates or other indicators of successful student outcomes. Examples of outcome quality measures are the indicators shown along with unit costs in Figures 2, 3, and 4: violent infractions in jails, wastewater meeting federal effluent standards, and ratings of park conditions.

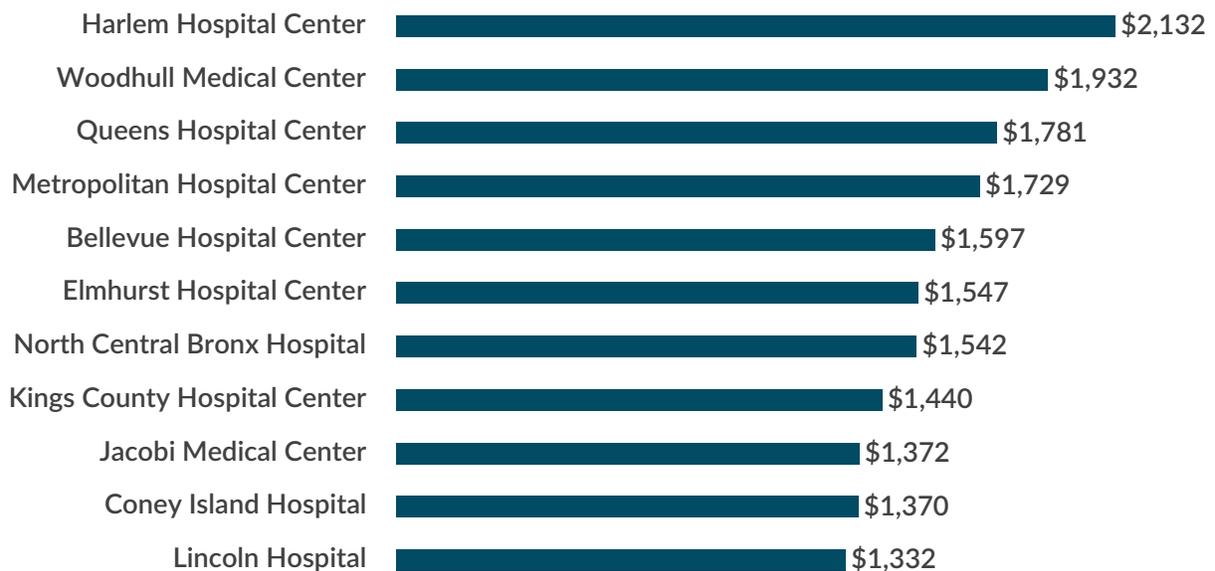
### 3. Standardize the methodology for cost allocation

The methodology for allocating costs to specific service activities should be standardized over time and among agencies. For example, how are administrative costs allocated to services within agencies, and how are centrally-budgeted costs, like fringe benefits, allocated to the programmatic areas? Currently, agencies build these measures using their own methods. Citywide standards should be established in accord with best practices, such as those set by the Governmental Accounting Standards Board.<sup>7</sup>

### 4. Explore opportunities for benchmarking

In addition to tracking efficiency over time, it is often useful to compare the efficiency of multiple offices or facilities within an agency and of a given municipal agency with that of other municipalities. Such analyses can uncover areas of relative inefficiency and reveal lessons for operational improvement. For example, NYC Health + Hospitals operates 11 hospitals whose unit costs, in this instance cost per inpatient per day, can be compared. Figure 5 suggests considerable variation among the facilities; further analysis

**Figure 5: Inpatient Costs per Patient per Day, NYC Health + Hospitals Inpatient Facilities, FY2014**



Note: Per diem costs include all routine service costs and all general inpatient routine service days (not including swing-beds and newborns).

Source: CBC analysis of data from Centers for Medicare & Medicaid Services, *Institutional Cost Reports*, "Hospital Form 2552-10" (Fiscal Year 2014), <https://www.cms.gov>.

considering variation in quality and other factors could point to useful lessons for the hospitals with the highest unit costs.

Similarly, unit costs allow for comparing New York City agencies with those in other cities.<sup>8</sup> To that end, cohort groups could be developed for each public service area - the best comparison cities for transportation might not be the same as for human services.

## CONCLUSION

The Preliminary Budget just presented projects tightening and uncertain fiscal conditions.<sup>9</sup> The de Blasio Administration has responded appropriately with contributions to the general and capital stabilization reserves. What is needed, in addition, is an enhanced focus on savings from agency efficiency initiatives, which currently account for only 12.6 percent (\$260 million) of the five-year Citywide Savings Program.<sup>10</sup> Greater use of unit cost indicators can help achieve more of these savings and serve as the basis for a broader shift in focus on how municipal services are assessed.

# ENDNOTES

<sup>1</sup> New York City Mayor's Office of Operations, *Mayor's Management Report* (September 2016), [http://www1.nyc.gov/assets/operations/downloads/pdf/mmr2016/2016\\_mmr.pdf](http://www1.nyc.gov/assets/operations/downloads/pdf/mmr2016/2016_mmr.pdf), and fiscal years 2006 to 2015 editions, <http://www1.nyc.gov/site/operations/performance/mmr.page>.

<sup>2</sup> New York City Mayor's Office of Operations, *Mayor's Management Report* (September 2016), [http://www1.nyc.gov/assets/operations/downloads/pdf/mmr2016/2016\\_mmr.pdf](http://www1.nyc.gov/assets/operations/downloads/pdf/mmr2016/2016_mmr.pdf); Citizens Budget Commission, *12 Things New Yorkers Should Know About Their Garbage* (May 2014) [http://www.cbccny.org/sites/default/files/REPORT\\_GarbageFacts\\_05222014.pdf](http://www.cbccny.org/sites/default/files/REPORT_GarbageFacts_05222014.pdf).

<sup>3</sup> Office of the Comptroller, City of New York, *NYC Department of Correction: FYs 2007-16 Operating Expenditures, Inmate Population, Cost per Inmate, Staffing Ratios, Performance Measure Outcomes and Overtime* (November 2016), <https://comptroller.nyc.gov/reports/nyc-department-of-correction-fys-2007-16-operating-expenditures-inmate-population-cost-per-inmate-staffing-ratios-performance-measure-outcomes-and-overtime/>.

<sup>4</sup> New York City Water & Sewer System, *Comprehensive Annual Financial Report: Fiscal Year 2016* (December 2016), p. 72, [http://www.nyc.gov/html/nycwaterboard/pdf/statements\\_and\\_reports/wb\\_annual\\_report\\_16.pdf](http://www.nyc.gov/html/nycwaterboard/pdf/statements_and_reports/wb_annual_report_16.pdf), and years Fiscal Years 2008 to 2016, see: [http://www.nyc.gov/html/nycwaterboard/html/statements\\_and\\_reports/index.shtml](http://www.nyc.gov/html/nycwaterboard/html/statements_and_reports/index.shtml); New York City Mayor's Office of Operations, *Mayor's Management Report* (September 2016), [http://www1.nyc.gov/assets/operations/downloads/pdf/mmr2016/2016\\_mmr.pdf](http://www1.nyc.gov/assets/operations/downloads/pdf/mmr2016/2016_mmr.pdf); The Council of the City of New York, *Report on the Fiscal 2017 Executive Budget*, "Department of Environmental Protection" (May 9, 2016), <http://council.nyc.gov/html/budget/2017/ex/dep.pdf>; and for Fiscal Years 2008 to 2015: <http://council.nyc.gov/html/budget/archive.shtml>.

<sup>5</sup> The Trust for Public Land, *2016 City Park Facts* (April 2016), p. 6, [http://www.tpl.org/sites/default/files/2016%20City%20Park%20Facts\\_0.pdf](http://www.tpl.org/sites/default/files/2016%20City%20Park%20Facts_0.pdf); New York City Office of Management and Budget, *Fiscal Year 2017 Adopted Budget* (June 14, 2016), p. 460, <http://www1.nyc.gov/assets/omb/downloads/pdf/adopt16-bfa.pdf>, and for Fiscal Years 2008 to 2015: <http://www1.nyc.gov/site/omb/publications/publications.page>.

<sup>6</sup> Previously MMR appendices included information on what each agency's UAs were, but did not indicate how much money had been allocated per UA. See: New York City Mayor's Office of Operations, *Mayor's Management Report*, "Appendix: Spending and Budget Information by Units of Appropriation" (September 2016), [http://www1.nyc.gov/assets/operations/downloads/pdf/mmr2016/spending\\_and\\_budget\\_information\\_by\\_units\\_of\\_appropriation.pdf](http://www1.nyc.gov/assets/operations/downloads/pdf/mmr2016/spending_and_budget_information_by_units_of_appropriation.pdf).

<sup>7</sup> See: Government Account Standards Board, *Suggested Guidelines: Voluntary Reporting of Service Efforts and Accomplishments (SEA) Performance Information*, (June 2010), [http://www.seagov.org/sea\\_gasb\\_project/suggested\\_guidelines.shtml](http://www.seagov.org/sea_gasb_project/suggested_guidelines.shtml).

<sup>8</sup> When comparing New York City with other municipalities, figures can be adjusted to account for higher overall costs in New York City using, for example, the U.S. Bureau of Economic Analysis Regional Price Parity

Indices.

<sup>9</sup> New York City Office of Management and Budget, *January 2017 Financial Plan Detail: Fiscal Years 2017-2021*, (January 24, 2017), <http://www1.nyc.gov/assets/omb/downloads/pdf/tech1-17.pdf>.

<sup>10</sup> Ibid.

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**Policy Brief ■ February 2017**

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