



BLOG | CITY BUDGET

# How the Pandemic has Affected NYC's Public Services, Activities, and Residents:

## A Close Examination of the MMR and 311 Data

October 20, 2020

The COVID-19 pandemic's impacts extend beyond public health, the economy, and the public fisc to the services needed by and provided to New Yorkers. During the early months of the pandemic, City workers continued to deliver essential services while themselves dealing with the challenges of the pandemic. Additionally, higher absenteeism among City workers who became ill reduced output and increased demands on the rest of the workforce.

An examination of the Mayor's Management Report (MMR) for Fiscal Year 2020, which reports key performance indicators for City agencies, reveals that some services, such as inspections and repairs, were curtailed, while social services and business support were increased.<sup>1</sup> For some services, like emergency medical response, increased demand amplified existing inefficiencies in service delivery. Other services, like sanitation, were slow to respond to shifts in behavior. Signals about the possible decline of quality of life in the City appear in increased crime rates and complaints regarding cleanliness, noise, and homelessness. However, understanding the pandemic's impacts in other critical areas, such as remote learning for public school students, is difficult; key data are unavailable in the MMR, from 311, or elsewhere.

### **1. Demand for social services and other support increased in fiscal year 2020.**

The number of individuals receiving cash assistance and Supplemental Nutrition Assistance Program (SNAP) benefits increased by 14 percent and 8 percent, respectively, in fiscal year 2020. This trend has continued in fiscal year 2021; the Office of the City Comptroller reported that cash assistance cases were up 3.2 percent and the number of SNAP beneficiaries increased 1.4 percent from June 2020 through August 2020.<sup>2</sup> The increase in SNAP caseloads was one

factor in SNAP timeliness—the percent of applications processed within 30 days—which decreased to 74.5 percent in fiscal year 2020 from 92.7 percent the prior year.

On the other hand, the decision to suspend evictions during the pandemic has likely helped keep New Yorkers facing financial distress out of homeless shelters. For example, entrants to homeless shelters were down 9 percent in fiscal year 2020, while the number of requests for emergency assistance at the Rental Assistance Unit decreased from 77,342 in fiscal year 2019 to 65,234 in fiscal year 2020 (16 percent). Nevertheless, 311 calls about homelessness increased 76 percent in the last quarter of fiscal year 2020 and another 39 percent in the first quarter of fiscal year 2021.<sup>3</sup> Once evictions resume, it is possible the number of entrants to shelter will increase.

Due to the “New York State on PAUSE” (PAUSE) order, health and social services provided through in-person interactions declined.<sup>4</sup> For example, in fiscal year 2020 new clients in Early Intervention—services for developmentally delayed infants and toddlers—declined 10 percent, and the Human Resources Administration (HRA) helped 7,800 fewer clients (20 percent less) secure employment and obtained 3,810 fewer child support orders (30 percent decline).<sup>5</sup>

The recession and economic shutdown also increased the need for business services. There was a four-fold increase in businesses served and receiving financial assistance through the Department of Small Business Services; there was a concurrent 61 percent increase in the value of financial assistance from \$76 million to \$123 million.

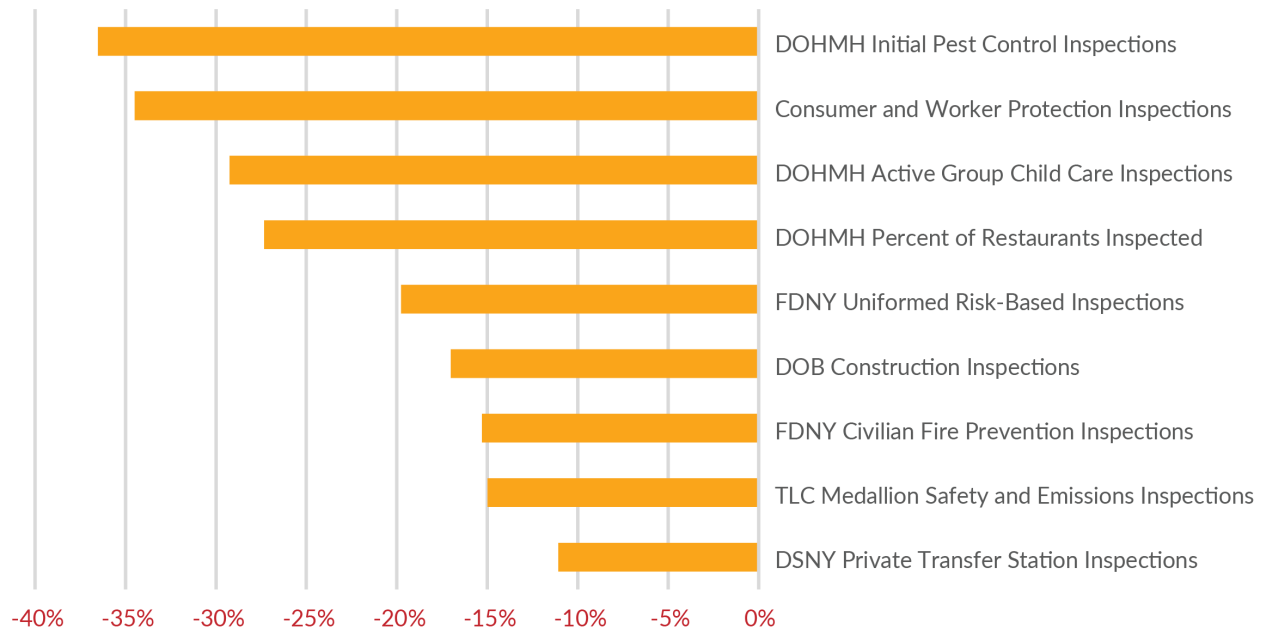
## **2. Due to the PAUSE order, some City activities took longer or decreased in volume.**

The number of non-essential in-person interactions declined. The Fire Department (FDNY) held 28 percent fewer fire and life safety education presentations. In part due to the shift to remote hearings, the Office of Administrative Trials and Hearings closed 20 percent fewer cases, with the average time to issue a decision after a closure up to 5.5 days in fiscal year 2020, from 4.2 days in fiscal year 2019. The Department of Environmental Protection (DEP) inspected just 53 percent of catch basins, down from 103 percent, and cleaned about 8,400 fewer of them.

Inspection activity also declined between 11 percent and 37 percent across most agencies. (See Figure 1.) In some instances, the City redeployed inspection staff to critical COVID-19 related functions. For example, Department of Sanitation (DSNY) private waste transfer station inspections declined 11 percent, Department of Buildings (DOB) construction inspections declined 17 percent, and inspections by the Department of Consumer and Worker Protection

declined 34 percent. The Department of Health and Mental Hygiene (DOHMH) inspected 72.3 percent of all restaurants, down from 99.5 percent the prior year.

**Figure 1: Annual Percent Change in Selected Inspection Volume, FY2019-FY2020**



**Source:** City of New York, Mayor's Office of Operations, *Mayor's Management Report: Fiscal Year 2020* (September 17, 2020).

### 3. Construction and rehabilitation work slowed, and repair times increased.

In the early days of the pandemic, capital projects were halted or delayed, in part to reduce capital expenditures and ensure sufficient cash balances.<sup>6</sup> Capital expenditures in the fourth quarter of fiscal year 2020 were lowest in a decade at \$1.5 billion, down from \$2.6 billion in the fourth quarter of fiscal year 2019.<sup>7</sup> Two significant impacts were on Housing New York projects, for which there was a 50 percent drop in capital commitments (from \$1.5 billion in fiscal year 2019 to \$761 million in fiscal year 2020) and School Construction Authority projects, for which only \$1.8 billion in commitments were made in fiscal year 2020 compared to a plan of \$4.8 billion.

The City resurfaced 231 fewer lane miles and filled about 55,000 fewer potholes; however, the number of roadway lane miles reconstructed increased to 55.9 lane miles, up from 30.8 lane miles. The share of streets with a good pavement rating was consistent, 71.8 percent in fiscal

year 2020, compared to 71.6 percent in fiscal year 2019. The number of sewers constructed or reconstructed was stable at 28.3 miles, compared to 28.6 miles the prior year, while the number of water mains installed or replaced decreased to 54.8 miles from 82.7 miles.

The average time to resolve service requests at the New York City Housing Authority (NYCHA) was up by 4 hours for emergency requests (from 12.7 to 16.7 hours) and by more than 8 days for non-emergency requests (from 19.4 to 27.6 days). Similarly, the average time to prepare a vacant apartment increased to 115 days from 84 days in fiscal year 2019. The average number of days to close emergency and non-emergency complaints at the Department of Housing Preservation and Development (HPD) increased by 5 percent and 21 percent, respectively, in fiscal year 2020.

#### **4. Chronic service inefficiencies persisted, and in some cases worsened.**

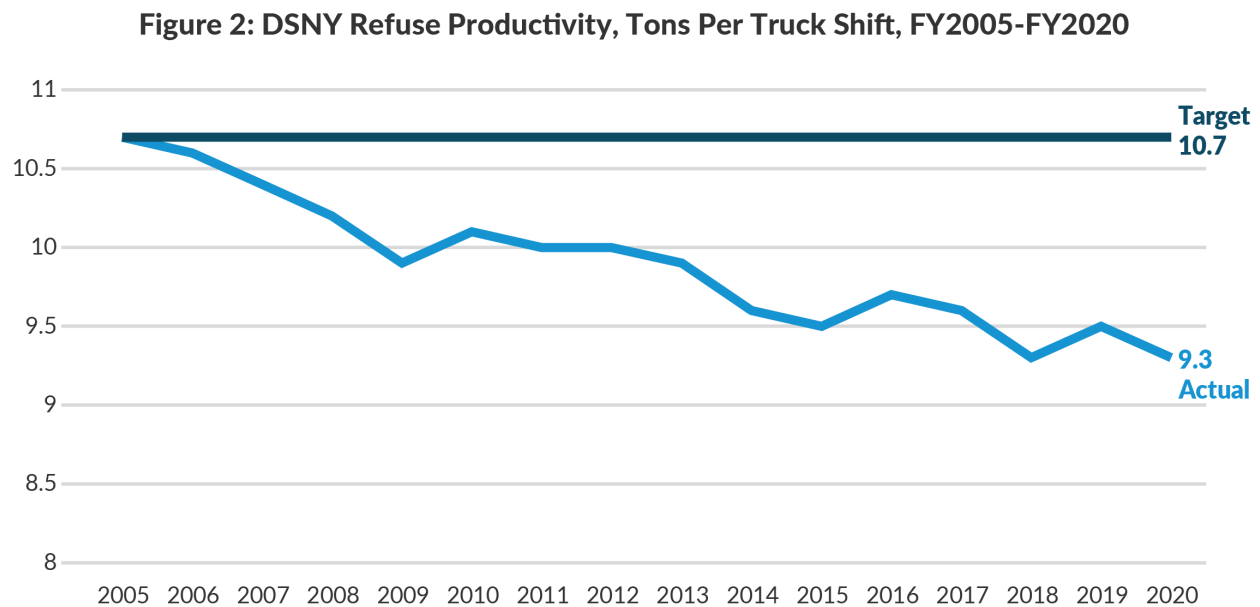
##### **4. a) COVID-19 pandemic placed significant burden on Emergency Medical Services.**

Demand for Emergency Medical Services (EMS) increased during the pandemic, with the number of segment 1 medical incidents (the most severe) increasing by 25 percent from 26,231 to 32,821. The increased volume of calls, combined with higher than usual sick-leave rates among EMS personnel, led to a 10 percent increase in ambulance response times from 9 minutes and 22 seconds in fiscal year 2019 to 10 minutes and 19 seconds in fiscal year 2020.<sup>8</sup>

Under a strategy that long predates the pandemic, the FDNY dispatches fire engine companies to some life-threatening medical calls because they can usually arrive more quickly than ambulances; firefighters are trained to offer limited medical assistance to help as patients wait for ambulances. The pandemic tested this strategy; instead of helping EMS contend with high call volume, the FDNY temporarily stopped dispatching fire companies to medical incidents involving respiratory distress in order to prevent potential spread of coronavirus within firehouses.<sup>9</sup> As a result, total fire company runs declined 14 percent as responses to medical incidents declined 11 percent.<sup>10</sup> To relieve the burdens on EMS, the FDNY enlisted the assistance of ambulance crews from outside of New York City. This clearly signals the need to orient the structure of the department and its [allocation of resources](#) away from firefighting toward than medical response.<sup>11</sup>

##### **4. b) The Department of Sanitation struggled to adapt to shifts in waste production.**

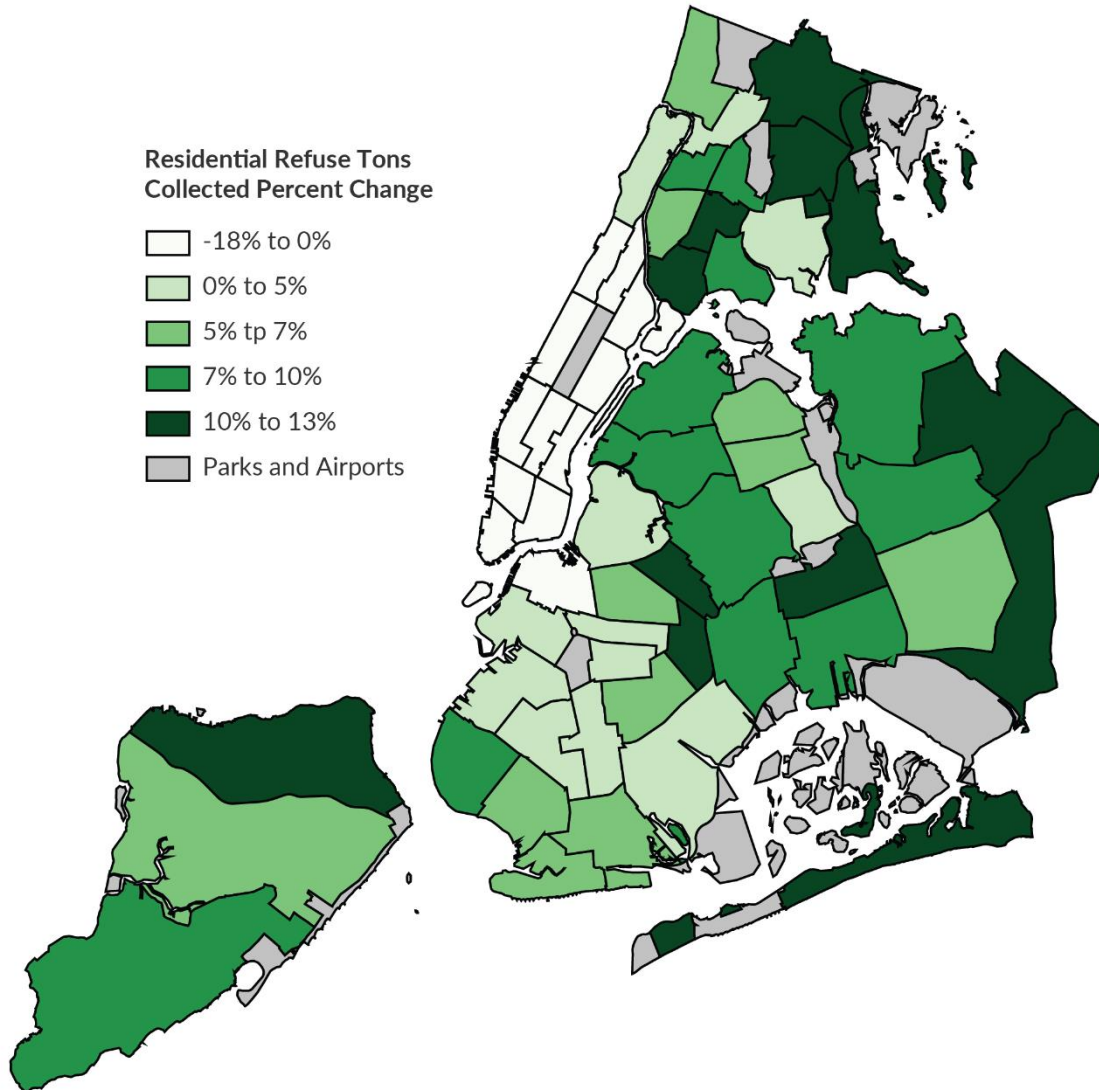
Tons of refuse collected per truck shift is one measure of productivity at DSNY. This metric has been below the contractual target of 10.7 tons per truck shift since fiscal year 2006; in fiscal year 2020 it reached a low of 9.3 tons. (See Figure 2.) [DSNY’s routing and work rules are not sufficiently flexible](#), limiting quick redeployment of resources to address rapid changes in waste generation patterns resulting from the pandemic.<sup>12</sup> In addition, DSNY faced a higher sick leave rate among uniformed employees: 9.5 percent in fiscal year 2020 compared to 6.7 percent in fiscal year 2019.



**Sources:** City of New York, Mayor’s Office of Operations, *Mayor’s Management Report: Fiscal Year 2020* (September 17, 2020); and fiscal year 2005 to 2015 editions

Total curbside and containerized refuse collected during fiscal year 2020 was up just 0.1 percent over fiscal year 2019.<sup>13</sup> However, during the first six months of the pandemic, March to August 2020, refuse increased by 4.6 percent compared to the same six months in the prior year. Refuse decreased by 19,242 tons in 12 community districts (11 in Manhattan and 1 in Brooklyn) and increased 79,412 tons in the remaining 47 community districts. (See Figure 3.) This altered refuse distribution reflects different responses to the pandemic, with some residents leaving the city and others spending more time at home. The decrease in tonnage was in districts that usually have high productivity; one impact of this shift in waste distribution was to further decrease average refuse collection productivity. (Recycling tonnage and the diversion ticked up, while recycling productivity, measure in tons collected per truck shift, was unchanged).

**Figure 3: Percent Change in Refuse Collected by DSNY March to August 2020, compared to March to August 2019**



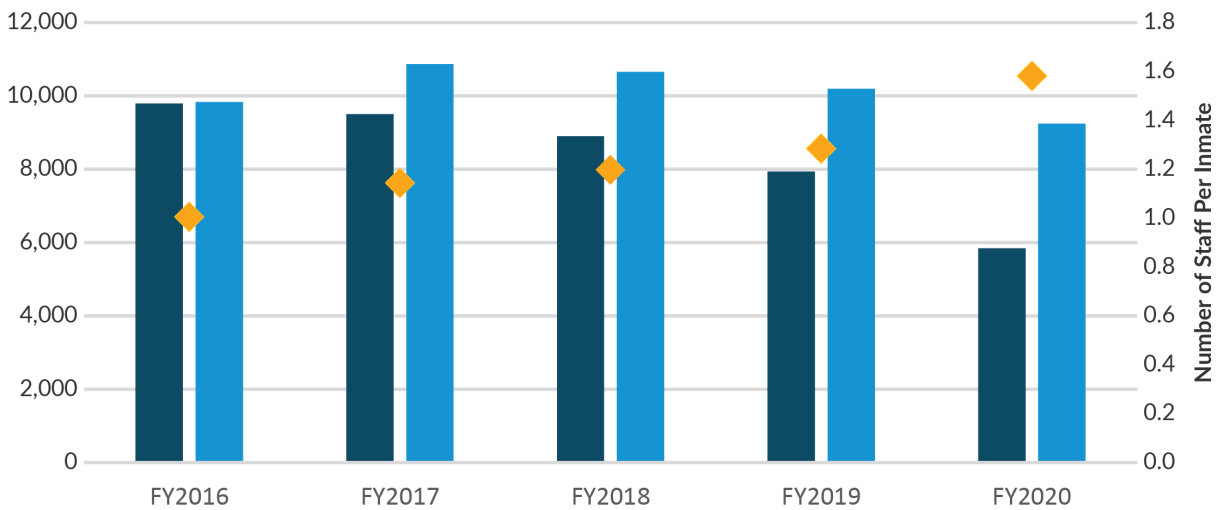
**Source:** CBC staff analysis of City of New York, Open Data, *DSNY Monthly Tonnage Data* (accessed September 30, 2020); and City of New York, Department of City Planning, *Community Districts (Clipped to Shoreline) Shape File* (accessed September 30, 2020).

**4. c) The average daily jail population declined substantially; now there are more uniformed staff than inmates.**

Last year’s bail reforms and the pandemic sped the decline in the average daily inmate population. The average number of individuals in custody dropped 26 percent, from 7,938 in fiscal year 2019 to 5,841 in fiscal year 2020. On September 28, 2020, there were 4,384 inmates in custody. Uniformed Department of Correction (DOC) staffing declined more slowly, leading

to a 57 percent increase in the number of DOC uniformed staff per inmate from 1.0 in fiscal year 2016 to 1.6 in fiscal year 2020. (See Figure 4.) The rates of violent altercations continued to increase in fiscal year 2020; the Department attributes this in part to individuals currently in custody being charged with more serious crimes and having more gang affiliations.

**Figure 4: Department of Correction Average Daily Population, Uniformed Staff, and Staff to Inmate Ratio, FY2016-FY2020**



**Note:** Uniformed correction staff as of June 30 of each year.

**Source:** City of New York, Mayor's Office of Operations, *Mayor's Management Report: Fiscal Year 2020* (September 17, 2020).

## 5. Total felony crime ticked up in fiscal year 2020, but trends differ by type of crime.

Total major felony criminal incidents increased 1.2 percent. (See Table 1.) Certain types of crime increased substantially in fiscal year 2020: murder, burglary, and grand larceny auto were up 20 percent or more from the prior year, and robbery increased 7 percent. Gang incidents and gun arrests increased 52 percent and 7 percent in fiscal year 2020, respectively. On the other hand, forcible rape incidents declined 17 percent and grand larceny declined 8 percent. While total felony crime is below the levels reported in fiscal years 2014 to 2018, the number of murders in fiscal year 2020 is the highest since fiscal year 2013.<sup>14</sup>

More recent NYPD data confirm these trends have largely continued in the first quarter of fiscal year 2021. (See Table 1.) From July through September 2020, grand larceny auto increased 64 percent, murders were up 60 percent, and burglary increased 30 percent compared to the same months in fiscal year 2020. However, total crime was down 1.1 percent due to fewer rapes, robberies, assaults, and grand larcenies.

**Table 1: NYC Major Felony Crime, FY2019, FY2020, and FY2021 Q1**

	Annual			First Quarter		
	FY2019	FY2020	Percent Change	FY2020	FY2021	Percent Change
Murder	278	352	26.6%	99	158	59.6%
Forcible Rape	1,368	1,136	-17.0%	497	418	-15.9%
Robbery	12,556	13,438	7.0%	3,758	3,580	-4.7%
Felonious Assault	20,240	20,369	0.6%	5,897	5,721	-3.0%
Burglary	11,053	13,229	19.7%	2,977	3,862	29.7%
Grand Larceny	42,956	39,524	-8.0%	11,831	9,873	-16.5%
Grand Larceny Auto	5,180	6,742	30.2%	1,800	2,952	64.0%
<b>Total Major Felony Crime</b>	<b>93,631</b>	<b>94,790</b>	<b>1.2%</b>	<b>26,859</b>	<b>26,564</b>	<b>-1.1%</b>

**Sources:** City of New York, Mayor's Office of Operations, *Mayor's Management Report: Fiscal Year 2020* (September 17, 2020); City of New York, New York Police Department, *NYPD Announces Citywide Crime Statistics for September 2020* (press release, October 2, 2020), *NYPD Announces Citywide Crime Statistics for August 2020* (press release, September 2, 2020), and *NYPD Announces Citywide Crime Statistics for July 2020* (press release, August 3, 2020).

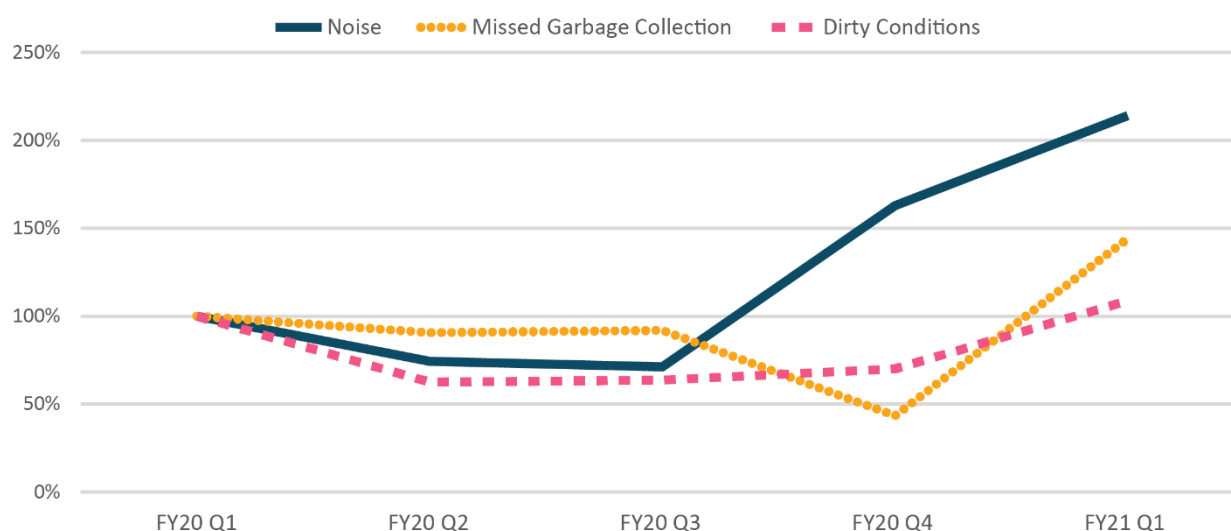
## 6. Cleanliness and noise are increasingly troubling New Yorkers.

The City does not collect high-quality data on key quality of life indicators (which is one reason CBC stresses [the importance of resident feedback surveys](#)). Some information is available on cleanliness and noise. Street cleanliness monitoring was suspended during the pandemic, as were some aspects of the Parks Inspection Program. Complaints to 311 for “dirty conditions” were down in March and April 2020, when many New Yorkers were staying inside and most businesses were shuttered.<sup>15</sup> Since then, complaints for dirty conditions have increased from 2,223 in May 2020 to 3,323 in September 2020 (compared to 2,732 in September 2019). Similarly, complaints for missed DSNY collections have increased. In the first quarter of fiscal year 2021, the City received 15,124 complaints about missed garbage collection, a 44 percent increase over the first quarter of fiscal year 2020. (See Figure 5.)



DEP enforces laws relating to noise pollution; the number of complaints to DEP decreased 24 percent in fiscal year 2020. While NYPD summonses for noise have been decreasing in recent years, in the last quarter of fiscal year 2020 and the first quarter of fiscal year 2021, noise complaints more than doubled. From July 2020 through September 2020, New Yorkers made over 295,000 noise complaints to 311, compared to 138,000 in July to September 2019. (See Figure 5.)

**Figure 5: Cumulative Change in Quarterly 311 Calls Regarding Noise and Cleanliness, FY2020 Q1 - FY2021 Q1**



**Note:** May not reflect full set of complaints during pandemic due to remote call taking.

**Source:** CBC staff analysis of City of New York, *Open Data, 311 Service Requests from 2010 to Present* (accessed October 2, 2020).

## 7. The MMR does not answer many important questions about public services and quality of life during the pandemic.

The MMR includes a chapter on the COVID-19 response that details the immediate actions taken from March to June on the pandemic, such as the number of personal protective equipment (PPE) distributed, number of meals distributed, and the number of digital devices distributed to NYC students. 311 data further add contours by showing what factors of city life are causing New Yorkers to call to file a complaint or request services.

Nevertheless, the MMR does not answer important questions. For example, the MMR's many metrics on the City's public schools do little to capture the myriad challenges facing the Department of Education in reopening City schools. Additionally, there are no data on the effectiveness of remote learning services as no assessments were administered in the spring of 2020, and attendance data only reflect attendance prior to the shift to remote learning. The impact on academic performance is even less clear.

The Department of Citywide Administrative Services was tasked with purchasing PPE and other materials and supplies to support the City's response, managing the fleet, and the City's civil service system. However, other than noting that the average number of bidders declined due to emergency procurements, the MMR does not indicate how effective and efficient the procurement has been in terms of costs per units or other metrics. There are no comprehensive data in the MMR on the number of City employees working from home part-time or full-time, how their technology needs have been met, and whether their productivity has been adversely impacted.

## **Conclusion**

To mitigate the coronavirus pandemic State and City governments virtually shut down the economy, which significantly impacted the services provided by City government in the last quarter of fiscal year 2020. The pandemic highlights the need for the robust performance metrics to foster an understanding of City services. The MMR captured some of the impacts. Supplemental data, such sanitation collection data and 311 complaints, paint a fuller picture. However, the City continues to lack adequate reporting of the effectiveness and efficiency of services.

By Ana Champeny

## APPENDIX: Selected Mayor's Management Report Indicators

Agency	Indicator	MMR Data					FY19-FY20 Change	
		FY16	FY17	FY18	FY19	FY20	N	%
<b>Section 1: Demand for social services and other support increased in fiscal year 2020.</b>								
HRA	Persons Receiving Cash Assistance (000)	370	364	356	332	378	47	14.0%
HRA	Persons Receiving SNAP (000)	1,693	1,676	1,608	1,524	1,642	119	7.8%
HRA	SNAP Application timeliness rate	93.9%	89.1%	89.4%	92.7%	74.5%	-0.182	-19.6%
DHS	Number of Family entrants	13,311	12,595	12,151	11,965	10,087	(1,878)	-15.7%
DHS	Number of Adult Family Entrants	1,476	1,583	1,469	1,433	1,118	(315)	-22.0%
DHS	Number of Single Entrants	19,139	19,800	21,177	21,122	20,296	(826)	-3.9%
HRA	Requests for Emergency Assistance at the Rental Assistance Unit	82,306	79,624	77,605	77,342	65,234	(12,108)	-15.7%
DOHMH	New Children Receiving Early Intervention Services	14,400	14,000	13,800	13,800	12,400	(1,400)	-10.1%
HRA	Clients whom HRA helped Obtain Employment (000)	47.0	44.9	39.8	39.9	32.1	(8)	-19.5%
HRA	Total new child support orders obtained	19,579	18,645	14,832	12,758	8,948	(3,810)	-29.9%
DPR	Attendance at pools	1,759,235	1,413,105	1,601,869	1,621,048	204,899	(1,416,149)	-87.4%
DPR	Recreation Center Attendance (through February 2020)	3,575,088	3,402,621	3,202,200	3,003,599	1,947,377	(1,056,222)	-35.2%
Lib	Total Lib Attendance Brooklyn Public Library (000)	8,686	8,382	7,943	7,874	5,290	(2,584)	-32.8%
Lib	Total Lib Attendance New York Public Library (000)	13,867	13,666	12,736	11,799	7,843	(3,956)	-33.5%
Lib	Total Lib Attendance Queens Public Library (000)	11,247	11,223	11,411	10,875	7,414	(3,461)	-31.8%
SBS	Unique Businesses Receiving Financial Aid	432	593	825	977	4,525	3,548	363.2%
SBS	Number of Financial Aids Awarded	567	658	1,074	1,186	4,750	3,564	300.5%
SBS	Fin Aid Awarded (\$ thousands)	\$44,983	\$45,701	\$54,234	\$76,152	\$122,610	46458	61.0%
FDNY	Fire and Life Safety Education Presentations	9,876	9,295	11,063	9,315	6,746	(2,569)	-27.6%

Section 2: Due to the PAUSE order, some City activities took longer or decreased in volume								
OATH	Cases Closed at the OATH Trials Division	2,560	2,668	2,677	2,660	2,118	(542)	-20.4%
OATH	Average time for the OATH Trials Division to Issue Decisions After Records Closed (business days)	5.4	5.2	4.0	4.2	5.5	1.3	31.0%
DEP	Catch Basins Surveyed/ Inspected (%)	31.7%	98.3%	99.3%	103.4%	53.1%	-0.503	-48.6%
DEP	Catch Basins Cleaned	30,778	52,057	39,098	49,005	40,631	(8,374)	-17.1%
DCWP	Total Inspections	76,909	75,951	65,672	62,971	41,251	(21,720)	-34.5%
DOB	Construction inspections	148,162	156,508	188,221	203,077	168,507	(34,570)	-17.0%
DOHMH	Restaurants Inspected	99.8%	87.5%	99.5%	99.5%	72.3%	-27.2%	-27.3%
DOHMH	Active group child care full inspections	7,764	6,732	9,286	8,624	6,102	(2,522)	-29.2%
DOHMH	Initial pest control inspections (000)	98,000	146,000	175,000	178,000	113,000	(65,000)	-36.5%
DSNY	Private Transfer station inspections	4,570	5,758	5,875	5,984	5,321	(663)	-11.1%
FDNY	Completed inspections performed by civilian fire prevention personnel	206,959	225,025	203,052	209,410	177,386	(32,024)	-15.3%
FDNY	Completed risk-based inspections performed by uniformed personnel	41,671	43,619	47,494	54,072	43,389	(10,683)	-19.8%
TLC	Medallion safety and emissions inspections	50,894	49,830	47,955	31,756	27,000	(4,756)	-15.0%

Section 3: Construction and rehabilitation work slowed, and repair times increased								
HPD	Total City Investment in Housing New York (\$m)			1575	1510	761	(749)	-49.6%
SCA	Capital Commitments (\$ millions)	\$2,568.0	\$3,061.7	\$3,554.3	\$3,925.7	\$1,791.0	(2,135)	-54.4%
DOT	Potholes repaired arterial highways	33,889	30,922	39,815	32,301	16,226	(16,075)	-49.8%
DOT	Potholes repaired local streets	269,329	229,160	239,426	196,038	157,102	(38,936)	-19.9%
DOT	Lanes miles resurfaced in house	1,239.4	1,321.2	1,321.9	1,324.0	1,092.7	(231.3)	-17.5%
DDC	Roadway Lane Miles Reconstructed	16.7	52.0	25.0	30.8	55.9	25.1	81.5%
NYCHA	Average Time to Respond to Emergency Service Requests (hours)	13.1	12.1	13.1	12.7	16.7	4.0	31.5%
NYCHA	Average Time to Respond to Non-Emergency Service Requests (Days)	14.7	17.5	18.6	19.4	27.6	8.2	42.3%
NYCHA	Average Time to Prepare Vacant Apartments (days)	40.7	45.2	50.8	83.5	114.5	31.0	37.1%
HPD	Average Time to Close Emergency Complaints (Days)	11.3	12.4	11.4	10.4	10.9	0.5	4.8%
HPD	Average Time to Close Nonemergency Complaints (Days)	23.3	21.0	17.5	17.7	21.4	3.7	20.9%
Section 4: Chronic service inefficiencies persisted, and in some cases worsened.								
FDNY	End to End Average Response Time to Life threatening Medical Emergencies by Fire Companies	7:20	7:27	7:38	7:49	8:25	0:36	7.7%
FDNY	End to End Average Response Time to Life threatening Medical Emergencies by Ambulance	9:09	8:56	8:58	9:22	10:19	0:57	10.1%
FDNY	Segment 1 incidents	33,096	32,261	28,582	26,231	32,831	6,600	25.2%
FDNY	Fire company runs	1,175,114	1,164,940	1,166,170	1,146,803	985,491	(161,312)	-14.1%
DOC	Average Daily Population	9,790	9,500	8,896	7,938	5,841	(2,097)	-26.4%
NYPD	Gang motivated incidents	349	350	347	495	750	255	51.5%
NYPD	Gun arrests	5,194	5,081	4,684	4,300	4,608	308	7.2%

**Source:** City of New York, Mayor's Office of Operations, Mayor's Management Report: Fiscal Year 2020 (September 17, 2020).

## Footnotes

1. Since the MMR data are for the full fiscal year, they understate the impact of the pandemic which is only reflected in data for the last third of the year).
2. Office of the New York City Comptroller, *New York by the Numbers: Weekly Economic and Fiscal Outlook: No. 21* (October 19, 2020), <https://comptroller.nyc.gov/newsroom/new-york-by-the-numbers-weekly-economic-and-fiscal-outlook-no-21-october-19-2020/>.
3. The 311 categories are homeless encampment, homeless person assistance, and homeless street condition. From April 2020 through September 2020, there were 15, 15615, and 9,894 calls in each category, respectively. City of New York, Open Data, 311 Service Requests from 2010 to Present (accessed October 2, 2020), <https://data.cityofnewyork.us/Social-Services/311-Service-Requests-from-2010-to-Present/erm2-nwe9>.
4. State of New York, Department of Health, “New York State on PAUSE” (accessed October 6, 2020), <https://coronavirus.health.ny.gov/new-york-state-pause>.
5. Similarly, attendance at many institutions, from recreation centers to cultural institutions to libraries decreased between 30 and 40 percent; pool attendance was down 87 percent due to closures.
6. In March, the City halted for construction and design work on non-essential City capital projects, even though design could have been done remotely. Furthermore, the Office of Management and Budget stopped releasing funds for many capital projects, at the end of fiscal year 2020, in large part to preserve cash balanced. Source: Testimony of Melanie Hartzog, Budget Director, City of New York, before the New York City Council Finance Committee Executive Budget Hearing (May 6, 2020), <https://legistar.council.nyc.gov/View.ashx?M=AO&ID=88648&GUID=9f65dd17-cd07-4fce-be1a-5f4af8931d05&N=SGVhcmluZyBUcmFuc2NyaXB0>.
7. Office of the New York City Comptroller, *New York City Quarterly Cash Report: April – June 2020* (September 1, 2020), <https://comptroller.nyc.gov/reports/new-york-city-quarterly-cash-report/>.
8. The higher sick leave rate is referenced in the text of the MMR, which did not report sick leave rates for FDNY in fiscal year 2020, despite reporting them for all other agencies.
9. The order was due to concern that one firefighter’s infection could require an entire firehouse to quarantine and was in place between March 7, 2020 and April 23, 2020. See: Bob Hennelly, “Tending to Patients Limits Fire Runs: UFA: Slower EMS Response Times Hurt Firefighter Performance, Too,” *The Chief Leader* (October 2, 2020, updated October 5,

2020), [https://thechiefleader.com/news/news\\_of\\_the\\_week/ufa-slower-ems-response-times-hurt-firefighter-performance-too/article\\_7c8110ee-04ee-11eb-bb06-0b85d72d3c85.html](https://thechiefleader.com/news/news_of_the_week/ufa-slower-ems-response-times-hurt-firefighter-performance-too/article_7c8110ee-04ee-11eb-bb06-0b85d72d3c85.html).

10. The response time for structural fires declined by 10 seconds.
11. Even though more than 75 percent of all incidents responded to by the Fire Department are medical emergencies, just 30 percent of the Fire Department's budget is allocated to firefighting rather than emergency medical services. See: Mariana Alexander, *Reviving EMS: Restructuring Emergency Medical Services in New York City*, Citizens Budget Commission (November 25, 2018), <https://cbcny.org/research/reviving-ems>.
12. For more detailed discussion, see: Tammy Gamerman, *Getting the Fiscal Waste Out of Solid Waste Collection in New York City*, Citizens Budget Commission (September 23, 2014), <https://cbcny.org/research/getting-fiscal-waste-out-solid-waste-collection-new-york-city>.
13. Curbside and containerized waste is roughly 92 percent of the refuse collected by DSNY.
14. There were 369 murders in fiscal year 2013.
15. The Open Data Portal notes that the 311 dataset may not reflect the full set of complaints due to challenges associated with remote call taking, so these complaint numbers are the minimum that may have been received and actual complaints may be higher. See: City of New York, Open Data, 311 Service Requests from 2010 to Present (accessed October 2, 2020), <https://data.cityofnewyork.us/Social-Services/311-Service-Requests-from-2010-to-Present/erm2-nwe9>.