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June 10, 2010

The Hon. Bill DeBlasio
Public Advocate
New York City
1 Centre Street, 15th Floor
New York, New York, 10007

The Hon. Diana Reyna
Councilmember
New York City Council
444 South 5th Street
Brooklyn, New York, 11211

Dear Councilmember Reyna and Public Advocate DeBlasio:

At your request, the Independent Budget Office has reviewed the impact on kindergarten class sizes in Department of Education schools from the Bloomberg Administration's initiative to end the policy of providing kindergarten services for some 5-year-olds at day care centers operated under the Administration for Children's Services. The following paragraphs summarize the results of our analysis. I am also attaching a memorandum which provides greater detail.

The closing of ACS-contracted day care centers to kindergarten-age children occurred as kindergarten class sizes were generally increasing across the city. Adding kindergartners who would have enrolled at ACS centers helped push the average up further last year as rising enrollments mixed with diminished school budgets. The increase in average class size was largest in the schools that had at least five more kindergartners in 2010 than in 2009 who had been in ACS centers as 4-year olds; enrollment at these schools accounted for more than 30 percent of kindergarten general education students.

The share of students in kindergartens with classes over the contractual limit of 25 students rose from 6.6 percent in 2009 to 7.9 percent in 2010, driven completely by schools more affected by the policy change. These schools doubled the number of students in classes of more than 25 students from 2009 to 2010, in contrast to schools not affected by the policy, which instead saw a reduction. All schools, regardless of the effect of the policy change, had fewer small classes with less than 20 students in 2010 than they did in 2009.

Overall, the expectations by the DOE and ACS that the policy change would have only a modest impact on the schools likely to be effected given the available capacity in such schools proved largely correct, although the rising incidence of large classes at these schools suggests that for some schools the transition has been more difficult.

Thank you for the opportunity to be of service. If you have any further questions about this matter I would be happy to discuss them further. Please feel free to contact either me, or IBO Deputy Director George Sweeting, who supervised the preparation of this analysis by Sarita Subramanian and Shari Westman.

Sincerely,

Ronnie Lowenstein

MEMORANDUM

TO: George Sweeting
FROM: Sarita Subramanian
Shari Westman
SUBJECT: Effect of Closing ACS Day Care Centers to Kindergartners on Average Kindergarten Class Size
DATE: June 7, 2010

In September 2009, the beginning of last school year, the New York City Administration for Children's Services (ACS) ended a longstanding practice of providing kindergarten services for some 5-year-old children at ACS-contracted child care centers ("ACS centers"). The freed-up center capacity was used to increase the number of younger children served by the centers.¹ At the time there was concern that an influx of 5-year-olds from ACS kindergartens to Department of Education (DOE) schools would lead to an increase in class sizes this year in the schools absorbing these students. The concern was heightened because the change was occurring at a time when the DOE was also experiencing a decline in budget resources with cutbacks in school budgets that would make it difficult to prevent class sizes from increasing. IBO has analyzed changes in class sizes and found that for schools most affected by the policy change, the average general education kindergarten class size grew by 1.3 students (6.1 percent) to 22.6 and that, as a result, these schools went from having slightly lower averages than the city as a whole to exceeding the citywide average of 22.2 kindergartners per class.

HOW MANY CHILDREN?

According to testimony by ACS officials in the spring of 2009 (before the policy change went into effect) an estimated 3,200 children who would have remained at ACS centers for the 2009-2010 school year were instead expected to enroll in kindergarten classes elsewhere, presumably at public schools in most cases.² Following the implementation of the change, the DOE calculated its own estimate using actual register data in fall 2009. The DOE tracked how many of the 5-year-olds, who were in ACS centers in the previous school year, were enrolled in DOE public schools in the 2010 school year. (Hereafter, school years are referred to by their ending year, so 2010 refers to the 2009-2010 school year).

The DOE looked at the 2004 birth cohort (students who would turn five before December 31, 2009 and, therefore, be eligible to enter kindergarten in September 2009) enrolled in ACS centers in April 2009 and matched those students (using names and additional demographic information) to kindergartners in DOE public schools as of October 31, 2009. The 2010 analysis found just over 5,100 kindergartners who had been at ACS centers the previous school year. The DOE then conducted the same analysis for the 2009 school year and found that roughly 3,000 ACS students ended up in DOE public schools in fall 2008. These results imply that in 2010 about 2,100 additional students came from ACS centers—presumably as a result of the policy change.

Several factors may explain the difference between the ACS estimate of 3,200 likely to be affected and the DOE's lower estimate. Some of those who would have attended ACS kindergarten this year may have found space in charter schools or parochial schools.³ Some of the difference may be due to the difficulty of matching students by name as was required in the DOE's approach. Finally, timing may account for some of the difference since the ACS estimate was based on enrollment in November 2008, while the DOE estimate used April enrollments each year. However, the ACS 2003 birth cohort

enrollment grew by some 400 students between April 2008 and November 2008. Those students would not have been included in the population analyzed by the DOE for the 2009 school year.

The closing of ACS centers to kindergarten-age children was a contributing factor behind the enrollment bulge, as it accounts for about 45 percent of the 4,700 increase in all categories of kindergartners (Gen Ed, special education, gifted and talented) in 2010. Other factors such as the growth in the cohort of kindergarten age students, increased housing development in some neighborhoods, increased demand for public schooling as opposed to private schooling, and a lower out-migration rate for families with school-age children may have also contributed to the sharp rise in kindergarten enrollment.

IBO ANALYSIS

Citywide, the average size of Gen Ed kindergarten classes has risen over the past several years (see Table 1). In each year, the average class size of Gen Ed kindergartens, weighted by the number of students at each school, exceeded the DOE's target class size of 20. From 2008 to 2009 the average Gen Ed class size increased by 0.3 students as the number of classes offered fell by 26, a decline of 1.0 percent, while enrollment held steady at just over 56,000 students. From 2009 to 2010, however, average kindergarten class size increased by 0.8 students, as a 4.8 percent increase in enrollment was only partially offset by a 0.3 percent increase in the number of kindergarten classes offered.

To isolate the impact of enrollment growth due to the closing of ACS centers to kindergartners, IBO identified 750 New York City public schools that offered at least one kindergarten class in any one of three years: 2008, 2009, or 2010. The change in class size from 2008 to 2009 at these schools—before the policy change—was used as a basis for comparison for the change during the one-year transition period of the policy change, from 2009 to 2010. We obtained the list of schools and their relevant class size data from the New York City Department of Education's Class Size Report from 2008 to 2010, based on audited register numbers released in February of each year.

Schools affected by the policy change were identified based on how many additional ACS kindergartners—as identified by DOE's matching process—were enrolled in 2010 compared to 2009. The DOE provided IBO with a list of schools and the number of kindergarten students enrolled for the 2009 and 2010 school years that were at an ACS center during the previous year. We used the DOE data to split the 750 public schools into two groups: those with at least five more ACS kindergartners in 2010 than in 2009 ("more affected by the policy change") and those with less than five more ACS kindergartners in 2010, fewer ACS kindergartners in 2010, or no ACS kindergartners in 2010 ("less affected by the policy change"). In total, schools that had more ACS students in 2010 than in 2009 had 2,482 additional students—close to the DOE estimate of 2,100. The cutoff of five was chosen because in schools where there were more ACS kindergartners in 2010 than in 2009, the average difference was 4.9 students.⁴ Schools more affected by the policy account for about 1,800 of the 2,100 former ACS students identified by DOE. In 2010 we identified over 18,500 students (almost a third of all Gen Ed kindergarten students) in the 209 schools that were more affected by the policy change. There were 520 schools with more than 40,000 kindergartners that were less affected by the policy change.

The IBO analysis compared class size in general education ("Gen Ed") kindergartens at schools more affected by the policy to kindergarten class size at schools less affected by the policy. We limited the focus to Gen Ed classes, which account for 85 percent to 88 percent of all kindergarten students, because the set of schools offering gifted and talented and collaborative team teaching classes can vary greatly from year to year. Tables 2 and 3 summarize average class size figures for both groups of schools

over the three years. The comparison suggests that schools more affected by the policy change experienced greater increases in average class size compared to schools less affected by the policy change.

IMPACT OF ACS KINDERGARTEN CLOSINGS: AVERAGE CLASS SIZE

Over the past few years, kindergarten enrollment growth has put upward pressure on average class size citywide. At schools more affected by the policy change, the large increase in kindergarten enrollment in 2010, coupled with a modest decline in the number of classes offered since 2008, put upward pressure on average class sizes. Schools less affected by the policy change have seen smaller increases in average class size over the same 2008 to 2010 period due to more moderate increases in enrollment coupled with slightly fewer classes.

The increase in average class sizes was steeper for schools more affected by the policy change since they had larger increases in enrollment. From 2008 to 2009—prior to the policy change—the number of students and the number of classes in schools more affected by the policy change fell by 3.7 percent and 4.3 percent, respectively. But last year, following the change, enrollment jumped up by 11.1 percent, while the number of classes increased by 3.7 percent. As a result, after increasing only slightly from 21.1 students in 2008 to 21.3 in 2009, the average class size rose more steeply to 22.6 in 2010.

Average class size rose more slowly at schools less affected by the policy change. In the years before the policy change, enrollment at these schools increased by 1.8 percent, outpacing a 0.5 percent rise in the number of classes. Following the policy change, the number of classes declined by 1.1 percent despite a 2.2 percent increase in enrollment from 2009 to 2010. Over the three-year period, average class sizes in schools less affected by the policy change grew modestly from 21.2 in 2008 to 21.4 in 2009 and then rose to 22.0 in 2010. From 2008 to 2010, the increase in average class size in schools more affected by the policy change has been almost double the increase experienced by schools less affected by the policy change.

In order to focus on the localized effect of the policy change, we identified schools that were more affected by the policy change that were also within half a mile of the ACS centers that closed their doors to kindergartners.⁵ These schools—accounting for about a quarter of schools with ACS kindergartners in 2010—had a total of 2,244 ACS students, a disproportionate share (43.8 percent) of all former ACS students in DOE schools. The schools more affected by the policy change but outside a half mile radius of the ACS centers—7.8 percent of schools with ACS students in 2010—had 10.5 percent of the students. The schools more affected by the policy change and closest to the ACS centers account for a substantial share of ACS students that the DOE located in public schools in 2010.

IMPACT OF ACS KINDERGARTEN CLOSINGS: DISTRIBUTION OF LARGE CLASSES

To determine the degree to which schools more affected by the policy change had particularly large kindergarten classes, IBO examined class-level data from the New York City Department of Education. Under the most recent teachers' contract, kindergarten class size is capped at 25 students; classes over that limit require a waiver. Therefore, we measured the percent of students in classes of more than 25 students to see if there was any change in the prevalence of large classes. We were able to review only the data for the 2009 and 2010 school years.

Based on this definition, 3,716 (6.6 percent of) Gen Ed kindergarten students in 2009 were in classes over the contractual limit. For 2010, the share of kindergarteners in large classes rose to 7.9 percent, or 4,633 out of 59,006 students. Put differently, the number of kindergarten students in classes with more than 25 students grew by 24.7 percent, more than five times the increase in enrollment.

In 2010, schools more affected by the policy change had a greater share of kindergarten students in large classes compared to schools less affected by the policy change, but the opposite was true in 2009. In 2010, 10.9 percent of students in schools more affected by the policy change were in classrooms with more than 25 students; in 2009, prior to the policy change, 6.0 percent of students in these schools were in large classes. In contrast, the share of students in large classes in schools less affected by the policy change was similar in both 2009 and 2010, 6.8 percent and 6.5 percent, respectively. In terms of the number of students in large classes, schools more affected by the policy change had double the number of students in classes of more than 25 students in 2010 as they did in 2009. Schools less affected by the policy change instead saw a decline in 2010 in the number of students in large classes.

The distribution of Gen Ed kindergarten classes by class size (see Table 4) indicates that schools experienced a smaller share of classes that were below the kindergarten class size target of 20 students in 2010 relative to 2009, regardless of whether they were affected by the policy change. Over 45 percent of kindergarten classes in schools more affected by the policy change had 20 or fewer students in 2009, but that decreased to about 29 percent in 2010. In schools less affected by the policy change, 43 percent of classes had 20 or fewer students in 2009 and the share also fell to about a third of students in 2010.

¹ Removing 5-year-olds from the ACS centers had originally been proposed as a budget savings by the Bloomberg administration but after negotiations with the City Council, the 2010 adopted budget used the dollar savings from closing the ACS kindergartens to increase ACS center capacity for younger children.

² The ACS estimate was based on the assumption that the number of 5-year-olds who attend ACS day care centers each fall (rather than enrolling in kindergarten elsewhere) is roughly the same each year. Testimony of Maria Benejan, ACS Associate Commissioner, was provided at a joint hearing of the City Council's General Welfare and Education committees on March 5, 2009.

³ The DOE's analysis identified 890 ACS students in charter schools in 2010 and about 630 ACS students in charter schools in 2009, implying a net increase of roughly 260 more ACS students in charter schools in 2010.

⁴ Tests showed that IBO's main findings are not sensitive to alternative definitions of schools more affected by the policy change, using cutoffs between five and 15.

⁵ We used GIS software to draw circles with ½ mile radius around each center and then identified the schools affected by the policy change within the circles. This approach assumes that families would look to schools that are near their old ACS center. While distance is a good way of identifying possible substitute schools, it cannot account for impediments such as major roads or strong neighborhood traditions that parents might take into account when considering alternative schools. ¹ Removing 5-year-olds from the ACS centers had originally been proposed as a budget savings by the Bloomberg administration but after negotiations with the City Council, the 2010 adopted budget used the dollar savings from closing the ACS kindergartens to increase ACS center capacity for younger children.

Table 1:

Class Size Trends in Kindergarten Citywide						
		Gen Ed	CTT	G&T	TOTAL	
2008	Number of Schools	716	262	84		
	Average Class Size*	Mean	21.1	21.1	21.0	
		Median	21.0	22.0	22.0	
		Minimum	9.0	9.0	8.0	
		Maximum	29.5	29.0	28.0	
	Total number of classes		2,719	288	98	3,105
Total number of students		56,223	5,893	1,966	64,082	
2009	Number of Schools		343	46		
	Average Class Size*	Mean	21.4	20.6	19.5	
		Median	21.5	21.0	20.0	
		Minimum	6.5	5.0	5.0	
		Maximum	36.0	30.0	27.5	
	Total number of classes		2,693	370	55	3,118
Total number of students		56,294	7,341	978	64,613	
2010	Number of Schools	729	368	69		
	Average Class Size*	Mean	22.2	21.7	21.8	
		Median	22.4	22.0	22.0	
		Minimum	11.0	9.0	9.0	
		Maximum	30.3	29.0	29.0	
	Total number of classes		2,702	397	92	3,191
Total number of students		59,006	8,361	1,925	69,292	

SOURCES: IBO; New York City Department of Education Class Size Reports
 NOTES: G&T denotes students in Gifted and Talented classes and CTT denotes students in Collaborative Team Teaching classes. *Average class size measures are weighted by number of students at each school.

Table 2:

Schools Serving Kindergarten Students More Affected by the Policy Change																		
	2008						2009						2010					
	Number of Schools	Mean Average Class Size	Number of Students	Number of Classes	Number of Students in Large Classes	Percent in Large Classes	Number of Schools	Mean Average Class Size	Number of Students	Number of Classes	Number of Students in Large Classes	Percent in Large Classes	Number of Schools	Mean Average Class Size	Number of Students	Number of Classes	Number of Students in Large Classes	Percent in Large Classes
GEN ED	200	21.1	17,365	840	N/A	N/A	201	21.3	16,729	804	1,007	6.0%	209	22.6	18,582	834	2,018	10.9%
CTT	72	21.1	1,650	81			92	21.0	2,059	101			114	22.2	2,595	119		
G&T	22	18.9	427	24			10	16.5	148	10			17	20.2	350	18		
GEN ED							0.5%	1.1%	-3.7%	-4.3%	N/A	N/A	4.0%	6.1%	11.1%	3.7%	100.4%	80.4%
CTT							27.8%	-0.4%	24.8%	24.7%			23.9%	5.8%	26.0%	17.8%		
G&T							-54.5%	-12.6%	-65.3%	-58.3%			70.0%	22.8%	136.5%	80.0%		

SOURCES: IBO; New York City Department of Education
 NOTES: G&T denotes students in Gifted and Talented classes and CTT denotes students in Collaborative Team Teaching classes. Large classes are defined as those with more than 25 students enrolled.

Table 3:

Less Affected by the Policy Change																			
	2008						2009						2010						
	Number of Schools	Mean Average Class Size	Number of Students	Number of Classes	Number of Students in Large Classes	Percent in Large Classes	Number of Schools	Mean Average Class Size	Number of Students	Number of classes	Number of Students in Large Classes	Percent in Large Classes	Number of Schools	Mean Average Class Size	Number of Students	Number of Cclasses	Number of Students in Large Classes	Percent in Large Classes	
GEN ED	516	21.2	38,858	1,879	N/A	N/A	518	21.4	39,565	1,889	2,709	6.8%	520	22.0	40,424	1,868	2,615	6.5%	
CTT	190	21.2	4,243	207			251	20.5	5,282	269			254	21.4	5,766	278			
G&T	62	21.6	1,539	74			36	20.0	830	45			52	22.1	1,575	74			
GEN ED							Percent changes												
GEN ED							0.4%	1.3%	1.8%	0.5%	N/A	N/A	0.4%	2.6%	2.2%	-1.1%	-3.5%	-5.5%	
CTT							32.1%	-3.3%	24.5%	30.0%			1.2%	4.7%	9.2%	3.3%			
G&T							-41.9%	-7.4%	-46.1%	-39.2%			44.4%	10.6%	89.8%	64.4%			

SOURCES: IBO; New York City Department of Education
 NOTES: G&T denotes students in Gifted and Talented classes and CTT denotes students in Collaborative Team Teaching classes. Large classes are defined as those with more than 25 students enrolled.

Table 4: Number of Gen Ed Kindergarten Classes by Size

	2009		2010	
	Schools Serving Kindergarten Students NOT Affected by the Policy Change	Schools Serving Kindergarten Students Affected by the Policy Change	Schools Serving Kindergarten Students NOT Affected by the Policy Change	Schools Serving Kindergarten Students Affected by the Policy Change
< 20	568	281	439	143
20	247	86	185	97
21	202	92	216	69
22	222	76	224	104
23	180	65	216	93
24	174	61	236	107
25	199	106	254	146
26	45	19	56	41
27	17	6	28	17
28	19	4	8	8
29	10	4	2	5
30	3	2	3	1
31	0	1	1	2
32	3	1	0	1
33	0	0	0	0
34	0	0	0	0
35	0	0	0	0
36	2	0	0	0
TOTAL	1,891	804	1,868	834

SOURCES: IBO; New York City Department of Education