



**WOMEN'S CITY CLUB OF NEW YORK  
TASK FORCE ON PHYSICAL EDUCATION  
IN THE NEW YORK CITY PUBLIC SCHOOLS**

**THE PERSISTENT PROBLEM OF PHYSICAL EDUCATION IN THE  
NYC PUBLIC SCHOOLS:**

**DATA SUPPLIED BY THE INDEPENDENT BUDGET OFFICE REVEALS  
DISPARITIES IN SPACE AND TEACHERS**

Over the past few years there have been increasing calls for the New York City Department of Education (DOE) to address its failure to provide adequate physical education (PE) to all the students in its schools. Now, a full year has passed since DOE, in response to the "New York City Comptroller's Audit Report on the Department of Education's Compliance with the Physical Education Regulations in Elementary Schools, October 2011," stated it would prepare a district Physical Education plan by the end of summer 2012. To date no plan has been announced. In the face of compelling evidence that academic performance is enhanced in students who receive regular PE, the lack of definitive action by DOE on this problem is disappointing.

Because a number of factors affect the ability of schools to offer the mandated hours of PE, Women's City Club (WCC), in previous reports, has recommended that DOE should begin a plan for improvement by conducting an inventory of mandated PE time, space and licensed PE teachers in schools throughout the system.<sup>1 2</sup> However, no such comprehensive inventory has been attempted or reported by DOE.

Seeking other sources for obtaining this information, early in 2012 WCC approached the New York City Independent Budget Office (IBO), which agreed to collect data on space usage for physical education from the DOE Annual Facilities Survey and on teachers assigned to physical education classes in each school from school budget data and DOE's Human Resources database. Data on required PE time, however, were inaccessible to the IBO.

Spread sheets<sup>3</sup> prepared by IBO showed:

- Space (square ft/student) used for physical education in each school building, including gymnasium, dance room, playground/play area, swimming pool or weight room.
- Shared space usage when more than one school is sharing space in the same building, showing which schools share the space and percent of time each school uses the shared space.
- Licensure of teachers assigned to physical education classes and the total number of teachers assigned to teach PE in each school.

Subsequently the IBO provided summaries and a tabulation of this material. (See attached letter and tables.)

<sup>1</sup> Physical Education in City Public Schools Task Force, Women's City Club of New York, Physical Education in New York City's Public Schools: A Missing Ingredient for Academic Success (2010)

<sup>2</sup> Physical Education in City Public Schools Task Force, Women's City Club of New York, Stop Short-Changing Our Children: Bring Physical Education Back to the Curriculum (2012)

<sup>3</sup> The spread sheets are posted on the Women's City Club website, [www.wccny.org](http://www.wccny.org), where parents, school personnel and other interested parties may obtain this information for individual schools.

The first IBO tabulation, which ranked school buildings by grade level from lowest to highest in terms of space per student available for PE, revealed very large disparities in the rankings. For both elementary and high school buildings, those ranked in the top 10% for amount of space per student had almost 5 times the amount of space per student as did those ranked in the bottom 10%. In middle school buildings the disparity between top and bottom 10% was 3 times the amount of space per student.

In the second tabulation, displaying shared space usage, a ratio was created to show the percent of time a school used shared physical education space compared to that school's percent of total building enrollment. (When the percentages are the same for the share of time and the enrollment, the ratio is 1, meaning the school is receiving its proper portion of access to the space. A ratio above 1 means a school is receiving more than its expected share and a ratio below 1 means it is receiving less.) Schools were then ranked by ratio, from lowest to highest. For the majority of schools the ratio was close to 1, indicating that space is being shared equitably. However, up to 25% of schools using shared space had a ratio of .9 or lower, meaning they had a lower share of time available than would be expected according to the size of their enrollment.

The final tabulation presented a citywide distribution of the number of teachers, licensed and unlicensed, assigned to teach physical education, according to type of school. A separate count of licensed PE teachers was included. Subsequently WCC made a calculation<sup>4</sup> to estimate the number of PE teachers that would hypothetically be needed to provide the required number of classes for the total city enrollment, by type of school:

**Elementary and K-8 Schools:**

The approximate number of teachers needed to meet mandated standards for all enrolled students is 1174. The actual number of assigned teachers is 825. Therefore at least 350 more PE teachers would be needed to properly staff the city's elementary schools. At present, the number of teachers with licenses is 53% of the number of teachers assigned to physical education in these schools.

**Middle Schools:**

The approximate number of teachers needed to meet mandated standards is 426. The actual number of assigned teachers is 486. Therefore middle schools appear to have a full complement of PE teachers. The number of teachers with licenses is equal to the number of teachers assigned to PE.

**High Schools:**

The approximate number of teachers needed to meet mandated standards is 612. The actual number of assigned teachers is 1138. Therefore high schools appear to have a surplus of PE teachers. The number of teachers with licenses is greater than the number of teachers assigned to PE.

Comments:

The information provided in these summaries is consistent with concerns about space and staff expressed previously by parents, advocates, and others. The data also offer additional insight into the breadth and scope of the problems and the challenges that will be presented by the search for solutions. While not

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<sup>4</sup> Assuming that one PE teacher can provide the 120 required minutes of PE to 320 elementary school students each week (30 classes of 40 minutes, with 32 students in each class), the total number of NYC elementary students in 2011 is divided by 320 to arrive at the number of teachers that would be needed. For middle and high schools, a class size of 50 was used.

unexpected, the marked disparities in available space are particularly troubling because they are likely to be structural and not easily remedied. This situation makes it all the more important that the School Construction Authority specify sufficient PE space in all plans for renovation and new school construction. In existing schools where space is inadequate, leadership will require extra ingenuity and assistance in order to comply with New York State PE requirements. One partial approach at DOE has been to incorporate the "Move-to-Improve"<sup>5</sup> curriculum into classrooms, while recognizing that it cannot replace regular PE. Although there may be no easy solutions for shortages of space, doing nothing should not be an option. Change can only begin to happen if school administrators at all levels make a firm commitment to the importance of identifying or creating suitable areas for students' PE experience. From small beginnings, larger improvements may eventually appear.

With respect to the citywide distribution of PE teachers according to level of school, the findings are rather surprising, and even puzzling, both within and between categories of school.

Reasons for the insufficient number of teachers reported at the elementary school level deserve further investigation. Have the numbers of teachers been correctly reported in the school budget? Is the absence of a teacher the cause or the result of the inadequate PE class time that was reported in the Comptroller's 2011 Audit? Is the distribution of available teachers equally proportioned among the different elementary schools? Are the barriers to employing a sufficient number of teachers to fulfill the state requirements due to budgetary constraints or priorities, shortages of qualified candidates or simply lack of interest or attention to the need by the leadership and/or absent demand from the field?

These conjectures can hardly be considered separately from the information about the assignment of teachers in the high schools, where a large surplus is reported. Do these teachers have responsibilities above and beyond PE? If so, what are they? And if this surplus is indeed genuine, how can it be reconciled with the situation in the understaffed elementary schools?

Given the limited and possibly inconsistent sources of data available to the IBO, attempts by any outside group to understand or interpret these IBO data will be flawed and uncertain. What is certain, however, is that these findings demand a review and response from DOE officials. In addition, comprehensive information about PE class time, the third key requirement for provision of required PE, should be compiled in order to create a complete assessment of the current PE situation and a plan for what is needed to bring it into compliance with the New York State mandates.

The Women's City Club reiterates its past position that the Department of Education must begin systematically to address the factors contributing to the marked inequity in access to physical education by far too many of its students. Once again we challenge educators at all levels to do what is best for the well-being of our children: establish a curriculum that recognizes the contribution of regular physical education to their academic achievement.

January 2013

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<sup>5</sup> Move-to-Improve (MTI) classroom physical activity program was designed by the New York City Department of Education (DOE) and the New York City Department of Health and Mental Hygiene (DOHMH) to provide teachers with the tools to incorporate brief, structured, classroom fitness breaks. These fitness breaks integrate grade-level academic concepts and physical activity into 10-minute lessons aligned to New York State PE Learning Standards.  
[http://schools.nyc.gov/NR/ronlyres/BE492EE1-51E2-4386-AEDE-8F6CF720D6DF/0/MTIFY13NOVINFOSHEET\\_FOR](http://schools.nyc.gov/NR/ronlyres/BE492EE1-51E2-4386-AEDE-8F6CF720D6DF/0/MTIFY13NOVINFOSHEET_FOR)



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June 15, 2012

Dr. Katherine S. Lobach, MD and Ms. Amy Schwartz  
Women's City Club of New York  
Physical Education Task Force  
307 Seventh Avenue, Suite 1403  
New York, NY 10001

Dear Dr. Lobach and Ms. Schwartz:

At your request, the Independent Budget Office has provided citywide summaries of the existence and use of physical education space in Department of Education (DOE) buildings as well as the number of teachers assigned to physical education and the number who are licensed to do so for the 2010-2011 school year. Your original request also included questions for which we do not have data: questions relating to the size of physical education classes and other data regarding principal programming of those classes. Along with the data we have provided, we hope that these summaries will provide useful statistical information that, combined with your own interviews with principals and teachers at the school level, will inform the discussion at the special WCC program on physical education this fall.

**Building-level Analysis: Space per Student**

IBO analyzed the School Construction Authority's (SCA) two main space allocation and use datasets for the 2010-2011 school year: the Annual Facilities Survey and the Enrollment, Capacity, and Utilization data (commonly referred to as the Blue Book). Table 1 provides the distribution of physical education space (including gymnasiums, dance rooms, playground/play areas, swimming pools, and weight rooms) at the building level—elementary, middle, and high—as assigned by SCA. Please note the distinction between buildings and schools. Since there are often multiple schools housed in each building, we take the aggregate enrollment of schools in the building to calculate a building-level enrollment from the Blue Book. We present the distribution of square foot of physical education space per student across buildings citywide in Table 1.

For elementary, middle, and high school buildings, there is quite a bit of variation across buildings, especially considering those at the 10<sup>th</sup> and 90<sup>th</sup> percentiles. Across all three building types, the mean square foot per student is greater than the median. This suggests that in each case, there are a few instances of buildings with much greater physical education space per student than most other buildings in that category. The square foot per student for buildings at the 90<sup>th</sup> and 99<sup>th</sup> percentile of the distribution also supports this notion. There is greater variation among elementary and high school buildings compared with middle school buildings.

**School-level Analysis: Space Use**

Table 2 summarizes data on individual schools' use of physical education space in buildings where those spaces are shared among multiple schools. The Annual Facilities Survey provides a breakdown of the percent of time each school uses shared space in the building and the Blue Book provides school-level

and building-level enrollment data. From these two data sources, IBO computes the following ratio for each school: the percent of time the school uses a shared physical education space divided by the school's share of the building's total enrollment. By scaling the school's use of physical education space by its relative share of enrollment, we can summarize usage across schools since we are taking two factors into account. First, schools vary in terms of their size. Second, the number of other schools they share the space with will affect the amount of time they are allowed to use the shared space.

According to the distribution, the median elementary, middle, and high school uses physical education space on par with its share of building enrollment. However, there is a greater degree of variation among middle and high schools than there is among elementary schools.

#### **Physical Education Teacher Staffing**

Turning to teacher staffing, Table 3 provides the distributions of teachers assigned to physical education and teachers licensed to teach physical education at the school level. It is important to note that we unfortunately cannot match individual teacher assignments obtained from DOE's detailed school budget data with individual teacher licenses obtained from DOE's Human Resources database. Therefore, we cannot be certain that those teachers licensed to teach physical education are in fact the same ones assigned to teach physical education. Instead, we can only match the aggregate number of assignments and licenses at the school-level. IBO considered the following license descriptions as qualifying as a physical education license: "A P Supv Hlth & Phys Ed", "Perfor Arts Dance Clas Ba", "Performing Arts Dance", "Performing Arts Dance Mod", "Physical Education", "Swimming", and "Swimming And Physical Edu."

Schools are classified according to the DOE as one of seven types depending on the grades served. The three main types of school are: elementary schools that generally serve kindergarten through fifth grade; junior high-intermediate-middle schools that generally serve sixth through eighth grades; and high schools that generally serve ninth through twelfth grades. Early childhood schools serve pre-kindergarten and kindergarten and may expand up to fifth grade. Secondary schools generally serve sixth through twelfth grades.

From the citywide distribution of 1,280 schools in Table 3, there are 2,254 teachers licensed to teach physical education while the number of teachers assigned to physical education is 2,605, which means that the number of teachers with physical education licenses is roughly 87 percent of the physical education assignments. By school type, elementary schools tend to have fewer teachers licensed to teach physical education relative to the number of teachers assigned to physical education. Since IBO does not have the data to explain why this phenomenon exists, perhaps principals in elementary schools can shed light on what types of licenses those teachers hold.

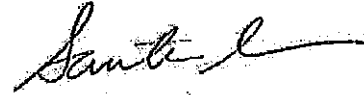
#### **Physical Education Class Size**

While IBO does not have data on the class size of physical education classes, we can summarize the current UFT contractual class size limits for those classes as well as the SCA's provisions for the maximum capacity for those classes when designing and constructing schools. The most current UFT contract for instructional pedagogues, which expired in 2009, specifies the following maximum class sizes for physical education classes based on grade: pre-kindergarten at 18 students; kindergarten at 25 students; elementary school grades at 32 students; and junior and senior high school grades at 50 students. The contract also includes exceptions to these rules for circumstances such as lack of space to maintain the class size or if the change would necessitate half classes or short time schedules. Finally, all physical education classes should serve students in the same grade, or in the case of special education

students in the same functional level. In its capacity calculations in the Blue Book, SCA sets maximum capacities for physical education space at middle and high schools even though they are excluded from capacity calculations at all school levels. At middle schools, the maximum capacity for gymnasiums is 56 students for Title I schools and 60 students for non-Title I schools. At high schools, the maximum capacity for gymnasiums is 45 students and for dance studios and weight rooms the maximum is 30-34 students. There are no specific maximum capacities mentioned for primary schools.

If you have any further questions regarding this request, please do not hesitate to contact me at 212-442-8640 or [sarita@lbo.nyc.ny.us](mailto:sarita@lbo.nyc.ny.us).

Sincerely,



Sarita Subramanian  
Education Budget and Policy Analyst

**Table 1: 2010-2011 Distribution of Physical Education Space (Square Ft/Student)**

Building Level	Number of Buildings	Minimum	1st Percentile	10th Percentile	25th Percentile	50th Percentile (Median)	75th Percentile	90th Percentile	99th Percentile	Maximum	Mean	Standard Deviation
ELEMENTARY	676	0.50	0.81	2.79	4.23	6.00	8.85	13.25	36.57	88.19	7.61	6.98
MIDDLE	181	0.44	0.73	3.60	4.96	6.37	8.35	11.82	23.00	31.11	7.26	4.03
HIGH	190	0.76	1.08	3.57	4.84	7.06	11.03	16.62	37.61	54.81	9.00	7.00

**Table 2: 2010-2011 Ratio of the Percent of Time that Schools Use Shared Physical Education Space to the Percent of Building Enrollment**

Building Level	Number of Schools	Minimum	1st Percentile	10th Percentile	25th Percentile	50th Percentile (Median)	75th Percentile	90th Percentile	99th Percentile	Maximum	Mean	Standard Deviation
ELEMENTARY	61	0.39	0.39	0.77	0.89	1.00	1.16	1.65	2.52	2.52	1.09	0.41
MIDDLE	87	0.50	0.50	0.73	0.89	1.00	1.28	1.88	10.91	10.91	1.31	1.20
HIGH	168	0.31	0.31	0.79	0.89	1.04	1.38	2.65	5.51	18.28	1.48	1.59

**Table 3: 2010-2011 Distribution of Physical Education Teachers Citywide**

School Type	Number of Schools	Number of Phys Ed Teachers	Number of Licensed Phys Ed Teachers	Percent of Teachers who are Licensed
Early Childhood	17	18	15	83%
Elementary	484	636	276	43%
Junior High-Intermediate-Middle	248	486	502	103%
K-8	122	189	162	86%
Secondary School	67	129	133	103%
High school	340	1,138	1,156	102%
K-12 all grades	2	9	10	111%
<b>TOTAL</b>	<b>1,280</b>	<b>2,605</b>	<b>2,254</b>	<b>87%</b>

