Learning About the Workforce

A Profile of Early Childhood Educators in New York City's Community- and School-Based Centers

A study conducted by the NYC Early Childhood Professional Development Institute & the Cornell University Early Childhood Program

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Relationships and collaboration are the heart of the work of early childhood educators. They have also been essential in the process of creating this report. The New York City Early Childhood Professional Institute (PDI) has many to thank for their contributions.

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Finally, we extend our gratitude to all those on PDI's Advisory Panel as well as to New York City's early childhood workforce: to the directors, teachers, assistant teachers in Head Start/Early Head Start, community- and school-based Universal Pre-K programs, ACS, private and blended/multi-type programs. For their participation in this study as well as the work they do every day with the city's children and families, they have our deep appreciation.

INTRODUCTION

Recent decades have been marked by a great expansion of knowledge about children's early development. High-quality early childhood experiences are increasingly recognized as critical to lifelong learning and success.[1] With the heightened focus on school readiness and the achievement gap, the spotlight is now on early childhood education, and, especially, on the early childhood workforce.

Today, nearly five million individuals other than parents care for and educate almost two thirds of America's children under the age of five.[2] They do so in diverse settings, including Head Start, public and private community-based child care centers, school- and community-based pre-kindergarten programs, and homes.[3] The quality of these settings, research confirms, is linked to the quality of their staffs, in particular, to their levels of formal education and specialized training in early childhood education.[4] Indeed, early childhood practitioners have the potential to profoundly affect children's growth and development.

A quick review of the characteristics of early childhood teachers nationwide reveals few surprises. While different patterns hold across the workforce at large, early childhood teachers are mostly white females in their late 30s and early 40s. Most hold at least an associate's degree, and their wages are low, particularly compared to those with similar qualifications in other fields. Moreover, benefits are scarce, and compensation varies enormously across settings, with center-based providers often subsisting on poverty wages and family child care providers in even more dire straits.[5] In spite of the interest in early childhood on the part of growing numbers of stakeholders, investments in the workforce are minimal, and retention continues to be a major challenge.[6]

The Project Context

If qualified early childhood workers are universally acknowledged to be one of the keys to improving quality, how do we educate, recruit, and retain them? To address these key policy issues in New York City, it is necessary first to have a clear picture of our early childhood professionals. Who are they? Where do they work? What levels of educational attainment and certification have they achieved? What kinds of compensation and benefits do they receive? How satisfied are they with their employment situations, and how do they view their longer-term involvement with the early childhood field?

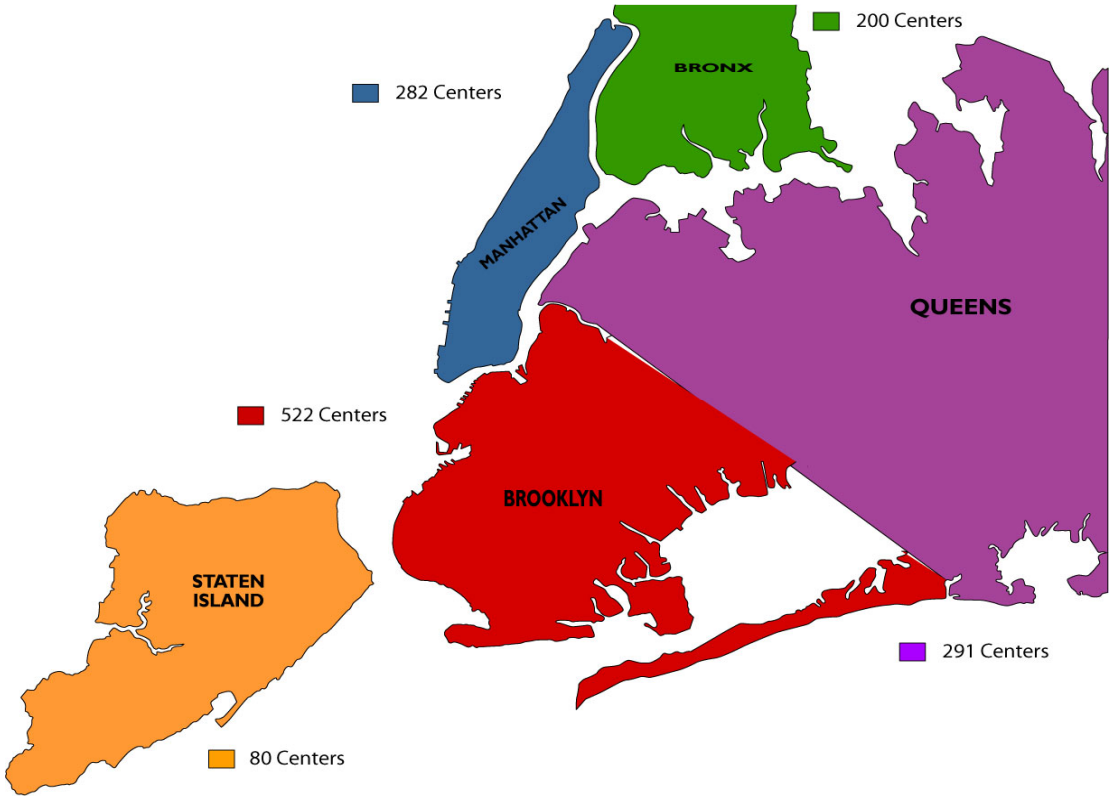
While numerous national and local workforce studies have been conducted, this is the first major in-depth study of the New York City early childhood workforce. A collaborative effort of the New York City Early Childhood Professional Development Institute (PDI) and the Cornell Early Childhood Program (CECP), this study was designed to examine the characteristics of the workforce that have been linked to high-quality early childhood education, including levels of education, program tenure, compensation, and participation in professional development.[7] A

second and related goal was to learn more about the needs of the early childhood workforce, including those related to compensation, recruitment, retention and turnover of staff, as well as professional development.

To develop a profile of the workforce, we surveyed directors, teachers, and assistant teachers in licensed community- and school-based early childhood centers in New York City serving children birth to five years old. While our profile includes information about and from directors representing community-based programs, we surveyed only teachers and assistant teachers in school-based programs, as there are no managers who fulfill the parallel functions of early childhood director in the public schools. The list of community-based centers—including Head Start/Early Head Start, Universal Pre-kindergarten (UPK), Administration for Children Services (ACS), private, and blended/multi-type—was provided by the New York City Department of Health and Mental Hygiene. The school-based UPK programs were reached through professional development meetings provided by New York City Department of Education staff. Our final sample frame (see Figure 1) included 525 school-based UPK programs and 850 community-based centers within the five boroughs and ten school districts. (For the full study methodology, see Appendix.)

Figure 1

Community- and School-Based Centers Included in the Sample



Total: 1375

Key Findings

Our study has provided a fascinating portrait of New York City's early childhood educators. A number of significant findings emerged that suggest further questions for research and directions for early childhood workforce policy in the city and state.

- **New York City's early childhood workforce is diverse, with a sizable percentage of educators representing different racial and ethnic groups**. Diversity is least evident among the ranks of directors, and most evident in community-based programs, particularly among assistant teachers, 61 percent of whom are people of color. In addition, fluent speakers of foreign languages are more prevalent in community-based settings.

- **A substantial education gap exists between community- and school-based educators.** Twice the percentage of community-based assistant teachers as school-based assistant teachers have the high school diploma as their highest level of educational attainment. More pre-K teachers in community-based programs have bachelor's degrees, but fewer have master's degrees than their counterparts in school-based settings. Teachers in community-based programs are struggling to catch up, with more of them likely to be currently enrolled in college than those in school-based settings.

- **Specialization in early childhood education or a related field varies across settings and education levels of early childhood educators**. While more than half of teachers with post-secondary and graduate degrees hold those degrees in early childhood, almost 60 percent of teachers in school-based programs hold master's degrees that are *not* in early childhood. An early childhood focus is more prevalent among community-based assistant teachers with associate's degrees and school-based assistant teachers with master's degrees.

- **The certification profile of early childhood educators is complex, reflecting different levels and gaps across settings and positions.** Overall, in community- and school-based programs, nearly 80 percent of pre-kindergarten teachers are certified. Certification is most prevalent among school-based pre-K lead teachers and assistant teachers. More than half of infant lead teachers in community-based programs, however, are *not* certified. While directors of community-based programs have high levels of education and experience in the field, none are certified in early childhood program administration.

- **The children served by New York City's early childhood workforce constitute a richly diverse group whose members speak a growing number of languages and are in need of targeted educational services.** Among the first languages predominantly spoken by children across early childhood settings is Spanish, followed by Chinese, Korean, Urdu, Russian, Bengali, and

Haitian. More than three quarters of school-based UPK teachers and nearly 90 percent of community-based teachers serve at least one English Language Learner (ELL). More than half of teachers in school-based UPK programs and 80 percent of teachers in community-based programs serve at least one child with a special learning need.

- **Setting is the dominant determining factor of compensation levels of early childhood educators**. Community-based teachers as a whole are compensated at significantly lower rates than school-based teachers, with those teaching in public schools earning 40 percent more, on average, than their colleagues in community-based programs. Community-based pre-K teachers, in particular, earn only 60 percent of their school-based colleagues, in spite of their parallel educational mandates and comparable work.

- **Most early childhood educators at all levels, and across settings, have benefited from professional development workshops, and many expressed the need for additional professional development**. Nearly three quarters of directors, 70 percent of community-based teachers, and almost half of school-based teachers reported that they are in need of additional professional development. A critical number, however, did not even acknowledge the need for professional development—the sine qua non of quality. Mentoring is most prevalent among school-based teachers, but more community-based teachers reported that they had acted as mentors themselves, and more than half expressed interest in being mentored.

- **Although a sizable percentage of teachers claim high levels of job satisfaction, directors regard retention and turnover as significant challenges.** Three quarters of all directors are concerned or very concerned about the retention of their teachers; they reported the turnover of at least one teacher during the previous year, with 23 percent losing teachers to the Department of Education.

- **Educators' plans to remain in the field vary across settings and are affected by levels of compensation, job satisfaction and certification and perceptions of how well their education had prepared them to work in the field**. School-based teachers are more likely than their community-based colleagues to plan to stay in the field for more than five years, and less likely to be uncertain of their plans. The same inclinations are true of teachers who felt that their education prepared them well for their work.

Recommendations

- **As the stewards of programs serving an increasingly diverse body of children, directors must reflect that diversity**. Greater efforts should be made to recruit administrators and managers from a variety of racial and ethnic groups, especially those represented by the children and families in their communities.

- **To enhance the quality of New York City's early childhood programs and foster greater equity across community- and school-based settings, all practitioners must have increased access to higher education.**

    - *Institutions of higher education need to tailor their work to the needs of the workforce, creating innovative approaches to developing great teachers*. Articulation[1] among institutions serving early childhood students and provisions for seamless navigation through course requirements must be priorities.

    - *Early childhood practitioners must have increased access to higher education*. New resources should be allocated for student support services, scholarships, loan forgiveness, and flexible opportunities for study.

- **To facilitate certification of early childhood educators at all levels, the process must be simplified, made more accessible and affordable, and accompanied by support for candidates**. Access to required courses and financial aid are paramount, along with tutoring for certification exams, which are often an obstacle to successful completion of the process.

    - *To address the gaps in directors' managerial experience, they should have greater access to the Children's Program Administrator Credential (CPAC)* as well as subsequent leadership development.

- **Given the high stakes for the field and the children it serves, the need for comprehensive, sequential, and developmental training as well as technical assistance for all early childhood professionals is of the essence.** The establishment of early childhood career advisors is a critical component of such a system. The culture needs to be transformed such that the value of life-long professional development is internalized and applied**.** Teachers and directors need a knowledge base that includes specific skills and dispositions based on an already-existing core body of knowledge.

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[1] Articulation involves agreements between higher education institutions that allow students to earn credit or complete a program of study at one institution and have that credit or degree counted toward fulfillment of their degree requirements by the college or university to which they transfer. (*Re-Visioning Articulation: Linkages in the Continuum of Students' Success,* The Wheelock College Institute for Leadership and Career Initiatives, 2003)

- **The critical problem of compensation levels in the early childhood field demands a greater commitment of energy and resources to changing current financing paradigms.** It is time to convene a group of financial experts to create an experimental model for New York City. A public education and engagement campaign must be an integral component of efforts in this direction.

- **The growing presence of English Language Learners (ELL) in programs serving our youngest children calls for a dramatic agenda to meet their needs.** Services must be made available both to ELL children and to their teachers, in the form of enhanced training and support, to address the crisis.

- **To strengthen retention and stem the tide of turnover, greater attention must be focused on these critical barriers to quality.** Further research should be conducted to isolate the factors that influence job satisfaction and teachers' plans to remain in the field. New York City and New York State must continue to explore strategies for increasing compensation, which has been linked to greater job satisfaction.

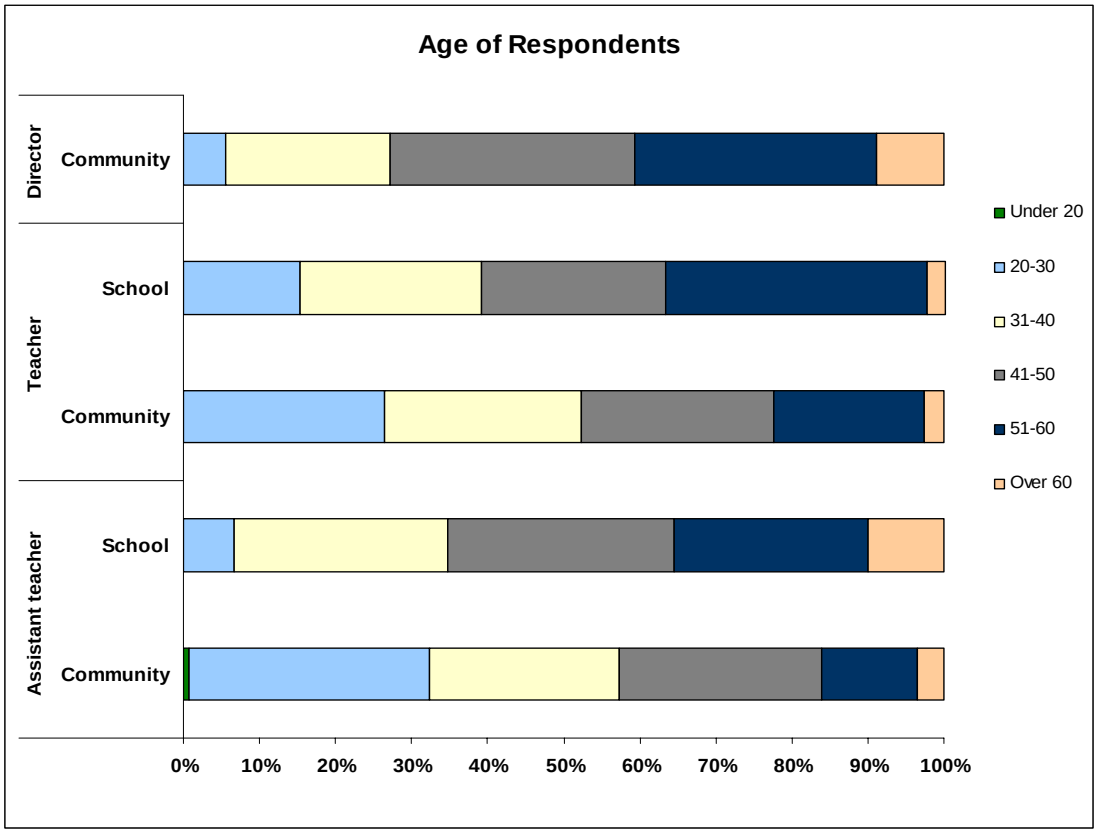
WHO ARE THE EARLY CHILDHOOD EDUCATORS?

While New York City's early childhood educators resemble their national peers in a number of ways—they are overwhelmingly female, they are mostly in their late 30s and 40s, and their compensation levels reflect the significant disparities between community- and school-based programs—they are more racially and ethnically diverse than the early childhood workforce at large, mirroring New York City's rich amalgam of people and cultures.

Age, Gender, and Culture

The overwhelming majority of directors (94 percent) are females, ranging in age from 24 to 72, with an average age of 48. Ninety-one percent of assistant teachers and teachers are females, ranging in age from 19 to 84, with an average age of 41 for teachers, and 40 for assistant teachers (see Figure 1).

Figure 1



Forty-four percent of directors are people of color, with the remainder describing themselves as white. Overall, 53 percent of teachers and 61 percent of assistant teachers are people of color, with the greater representation in community-based settings (see Figure 2). About 20 percent of early childhood teachers are fluent speakers of Spanish—the most common language need of ELL children served—and foreign language speakers are more common in community-based settings. Overall, about half of school- and community-based assistant teachers can claim fluency in a foreign language, with 40 percent of them speaking Spanish (see Figure 3).

Figure 2

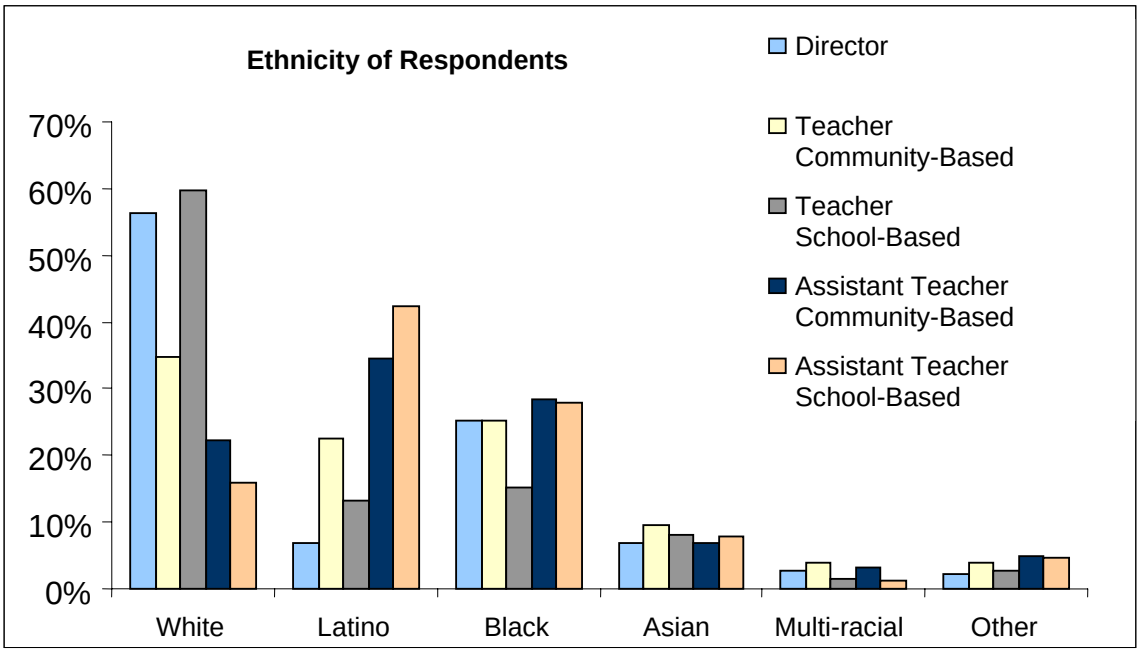
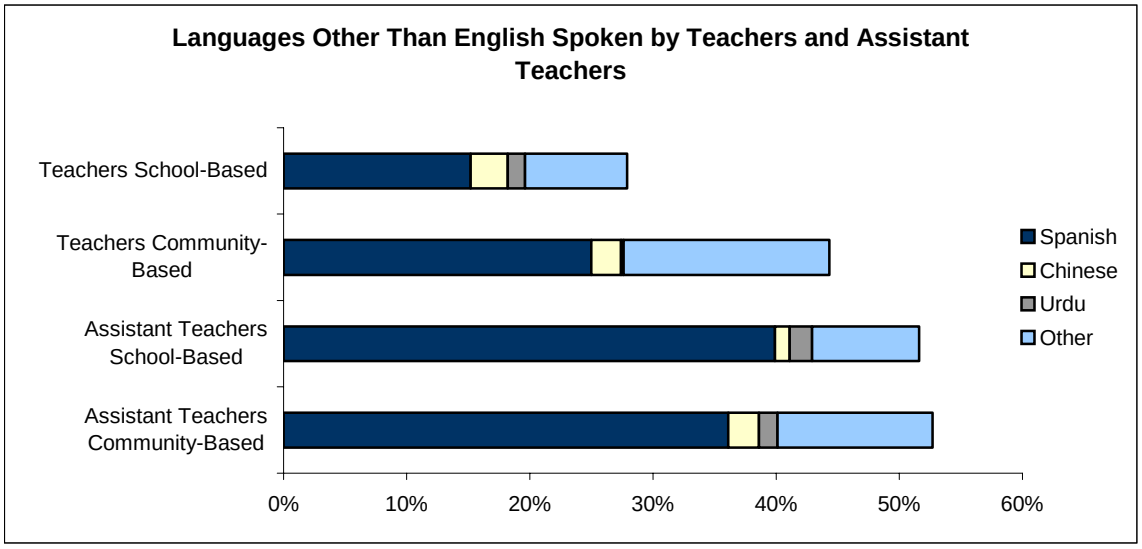


Figure 3

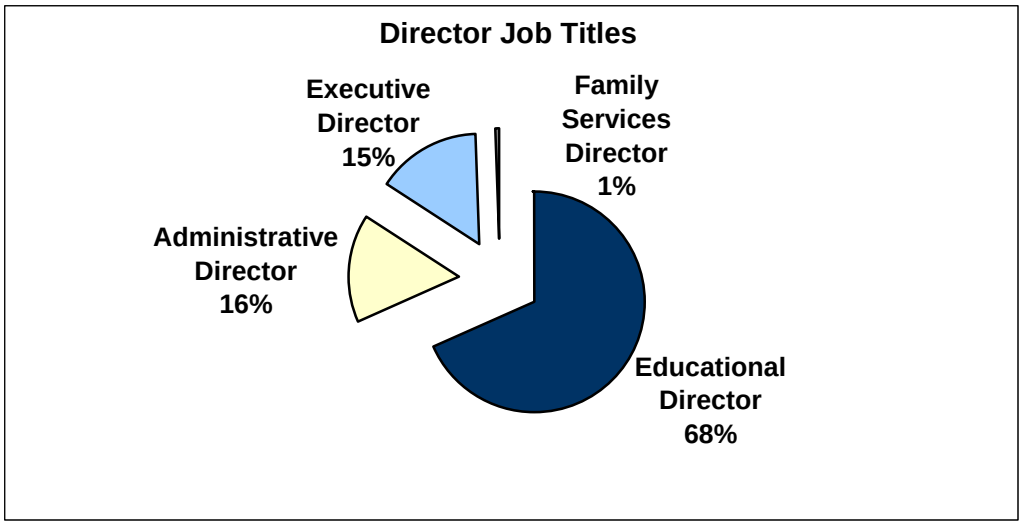


Roles and Employment Status

Survey responses from directors came from a variety of sources, including general and administrative directors, and overwhelmingly from educational directors, whose dominance no doubt reflects their greater involvement in, and oversight of, day-to-day operations of early childhood programs (see Figure 4). Directors work in programs with a total of 1,163 teachers and 1,737 assistant teachers and reported a

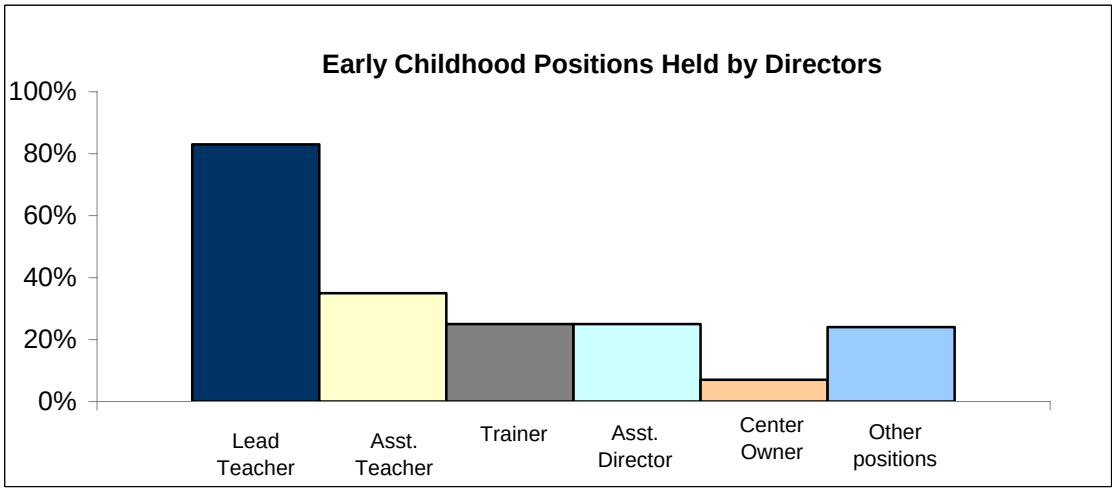
total of 77 current teaching vacancies for each position (ranging from 0-7 for teachers and 0-15 for assistant teachers per program). On average, 94 percent of the teachers work full-time.

Figure 4



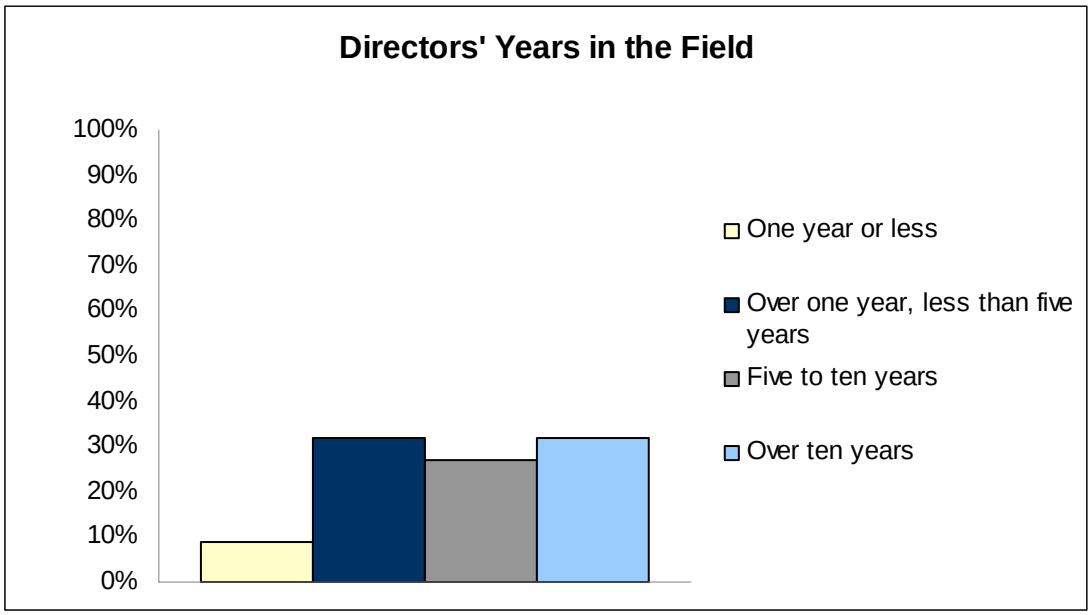
Directors of community-based early childhood programs have held their present positions for an average of eight years. Although 32 percent have more than 10 years of experience in the director's role—with 12 percent at or near retirement age—40 percent have less than five years of experience. Ninety-five percent of directors have held other positions in the field of early childhood; 83 percent, in fact, have been lead teachers (see figure 5).

Figure 5



Directors' longevity in the early childhood field is particularly striking: they reported an average tenure of about 20 years (see Figure 6). As a whole, teachers have been working in the field an average of 12 years, and assistant teachers ten years, with tenure likely to be longer in school-based than in community-based settings.

Figure 6



Education, Specialization, and Certification

A wide range of education and certification levels characterizes the national early childhood workforce. Qualifications vary across states, settings, and positions. Requirements for directors of child care centers are all over the map, with some states requiring college-level work and competence in child development and administration, and others with no education or training pre-service qualifications.[8] Outside of the public school system, there are no federal education standards for early childhood teachers.[9] Pre-kindergarten teachers generally have the highest levels of formal education, with nearly 75 percent holding a bachelor's degree or more, as compared to 36 percent, for example, in Head Start. While 33 percent of lead teachers hold a bachelor's degree, 43 percent of assistant teachers hold a high school diploma or less.[10] Moreover, a recent report by a team of labor economists and policy analysts confirmed an overall decline in educational attainment levels across various sectors of the early childhood workforce.[11]

Certification is also variable, with the majority of pre-kindergarten teachers (57 percent) certified by their states and 23 percent in possession of a Child

Development Associate (CDA) credential. In Head Start, 22 percent of teachers have a CDA, while in center-based programs about a fifth of teachers have the CDA with almost half in possession of a state certificate.[12]

New York City's early childhood workforce mirrors many, if not all, of these inconsistencies, with different levels and gaps across settings and positions.

Directors

Directors are widely acknowledged to play a significant role in creating the context for a high-quality early childhood program. As is the case with the teachers whom they supervise, directors' formal education and specialized early childhood training are linked to quality.[13] Research has consistently found that administrative practices are critical to positive outcomes for children.[14]

Educational Requirements

The educational requirements of early childhood practitioners vary, depending on the regulatory agency involved in the program's operation. All licensed community-based centers are subject to the regulations of the New York City Department of Health and Mental Hygiene (DOHMH) and Head Start/Early Head Start. Those centers funded by the New York City Administration for Children Services (ACS) are subject to their regulations as well. Community- and school-based universal pre-kindergarten (UPK) programs have additional educational requirements.

The DOHMH, for example, requires all day care centers to have an educational director with a minimum of two years of experience as a group teacher in a program for children under six years of age. The educational director should not have any teaching duties if the program has more than 40 children enrolled. If the center is part of a school, and has a principal with no teaching duties, the educational director should not have any teaching duties when more than 60 children are enrolled. Other agencies, such as ACS and the Department of Education (DOE) require directors to comply with the NYC Health Code and with other certification requirements as explained in the *Levels of Certification* section.

Educational Background

In New York City, 85 percent of directors have master's degrees. Of those directors who are currently taking courses, more than half are working towards a master's, and 21 percent toward a doctoral degree. Moreover, two thirds of directors hold their higher education degrees in early childhood education (see Table 1). It is significant, however, that 92 percent have had no education or experience in management prior to assuming their current position.

Table1

Educational Attainment of Directors

Degree Held	HS	AS/AA	BA/BS	MS/MA	Ph.D.
ECE focus	-	1%	5%	60%	2%
Other than ECE	-	1%	6%	25%	2%
Total	-	1%	10%	85%	4%

Levels of Certification

Requirements for licensing encompass both educational level and certification status. Directors in day care centers with more than 40 children, for example, are required to have the NYS Teaching Certificate in Early Childhood Elementary Education mandated by the NYC health code. Directors in infant programs are required to have two years of group teaching experience and a bachelor's degree with the NYS teaching certificate in Early Childhood or a master's degree. Early Head Start or Head Start programs require that directors have a permanent NYS Teaching Certificate.

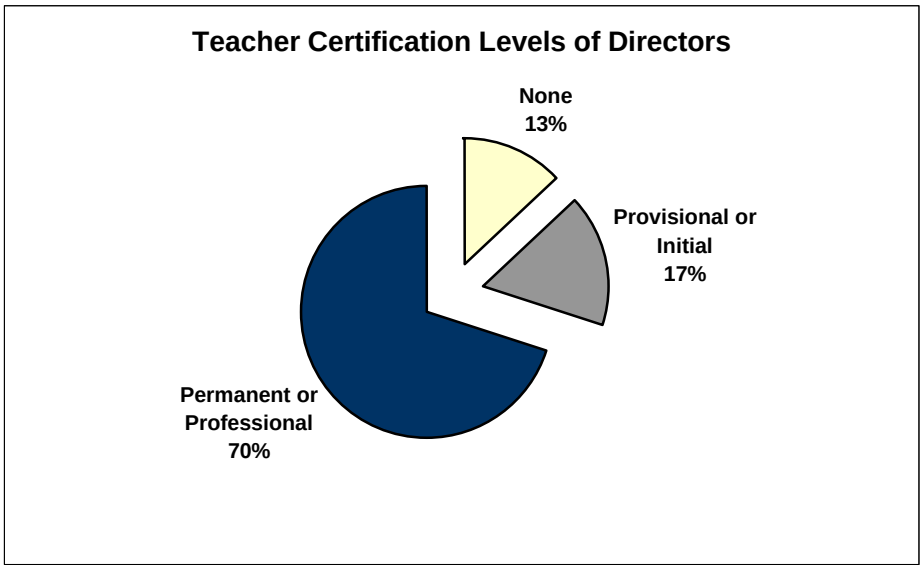
UPK standards require that directors in community-based programs have a valid NYS teaching certificate in Early Childhood. UPK programs in schools, on the other hand, are licensed by the State Education Department and are overseen by school principals that have master's degrees in educational leadership or a related field, a NYS School Administrator Credential, and a minimum of two years of school-based approved experience in an administrative position.

Our research revealed that more than three quarters of directors are certified to teach (see Figure 7). Those who are not certified are likely to be affiliated with programs in which there is more than one director and the educational director holds the New York State Teaching Certificate. One out of every four directors holds an administrator's credential such as the State Administration and Supervision Certificate, which prepares individuals to be principals in K-12 settings.

Very few directors throughout the state, however, possess the New York State Children's Program Administrator Credential (CPAC), which is designed to provide for, and be recognized as, a standard by which to measure program and fiscal management as well as the leadership abilities of early childhood and school-age administrators. The New York State Association for the Education of Young Children (NYSAEYC) is the credentialing agency, and requires directors to have 78 credits in college course work. Eighteen of those must be in early childhood, child

development or related courses, and another 18 must apply to program management and other CPAC competencies. To date, 42 individuals in New York State have earned the CPAC, none of them in New York City.

Figure 7



Teachers

Educational Requirements

The DOHMH requires preschool teachers to have a permanent certification in early childhood. Individuals may be hired with an associate's degree but must be enrolled in a study plan leading to teacher certification (see *Levels of Certification,* below, for information about study plans). For programs serving infants and toddlers, the requirement is a high school diploma. UPK teachers, on the other hand, must have at least a bachelor's degree in early childhood or a related field as well as a NYS Teaching Certificate.

Educational Background

Because of the diversity of early childhood programs and their agencies, all of which have different requirements, the educational background of staff varies according to setting.[15] Overall, 61 percent of teachers have master's, and 30 percent, bachelor's degrees. Half with a higher education degree of some sort—including associate's and doctoral degrees—claim specialization in early childhood (see Table 2). While there are no significant differences in early childhood specialization between school- and community-based settings, it is interesting to note the reversal at the master's

level, where almost 60 percent of teachers hold degrees that are not in early childhood.

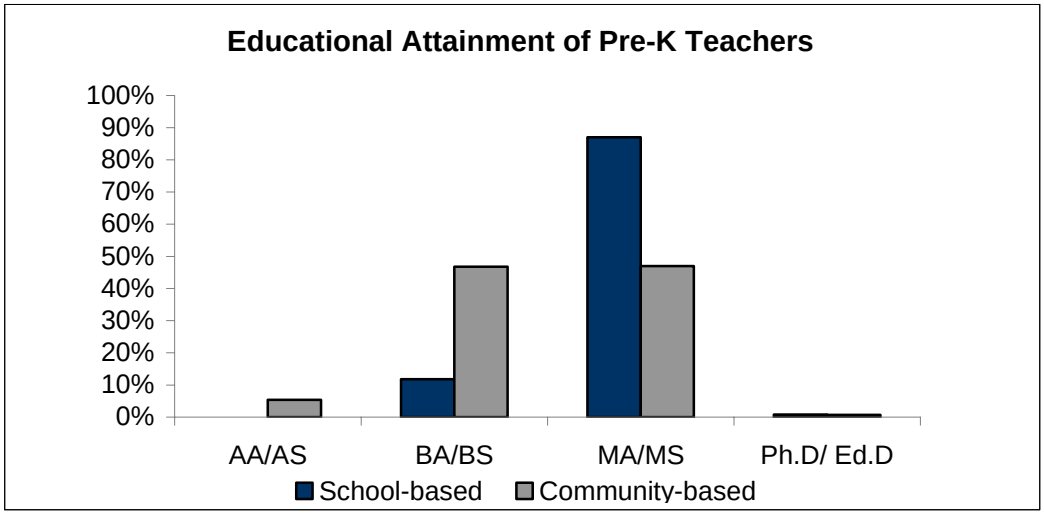
Table 2

Specialization in ECE: Teachers with Degrees

	Associate's Degrees		Bachelor's Degrees		Master's Degrees	
	Community	School	Community	School	Community	School
ECE	77%	-	38%	44%	61%	41%
Other than ECE	23%	100%	62%	56%	39%	59%

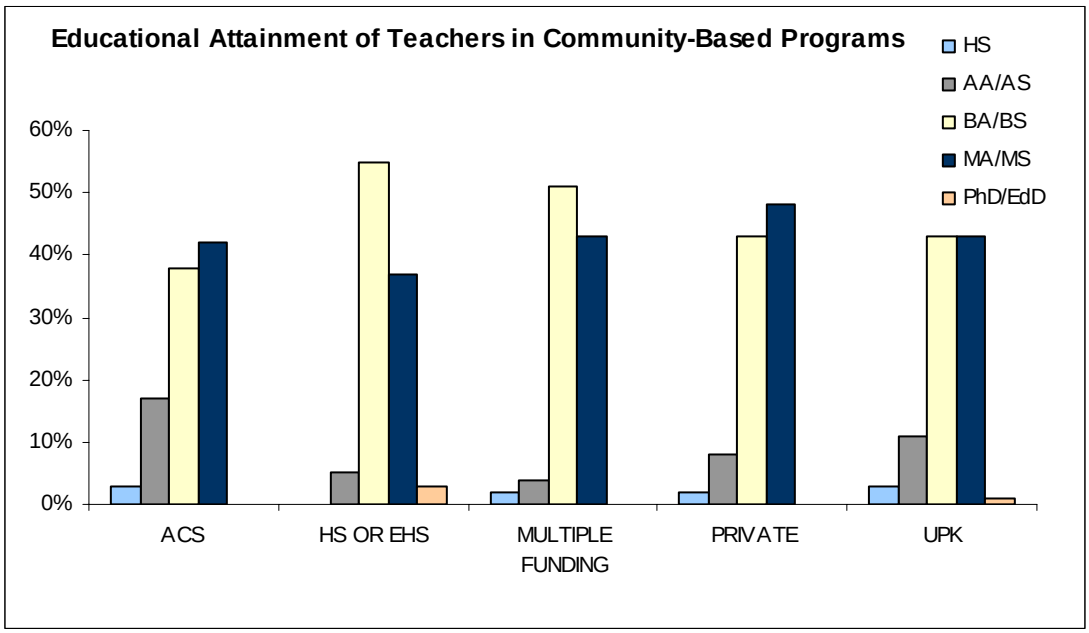
Most striking, however, is the significant difference in the levels of educational attainment by setting. In school-based programs, an overwhelming majority (88 percent) of teachers have master's degrees, while less than half of community-based teachers overall (43 percent) have reached the master's level. (See Figure 8 for a comparison, across settings, of the educational attainment of pre-K teachers, or those who serve three- to six-year-old children.).

Figure 8



A look at the various community-based programs reveals that master's degrees are most prevalent in private centers. Head Start and Early Head Start boast the greatest percentage of teachers with bachelor's degrees, followed by UPK and multiple-funded programs. Associate's degrees are most commonly found in ACS programs (see Figure 9).

Figure 9



Levels of Certification

As is the case with education requirements, those for certification vary by setting and age of children in the program. As of September 2005, all UPK teachers in New York State and New York City are required to have NYS Teacher Certification. However, UPK teachers can teach in community-based organizations without a NYS Teacher Certificate as long as the director is certified. UPK teachers working in school-based settings must have NYS Certification and a NYC license.

Group/head teachers who serve children older than two and are working in Head Start programs must have a bachelor's degree in early childhood or a related field and a NYS Teacher Certificate, while teachers working in programs with multiple or private funding are required to have a bachelor's degree in early childhood or a related field and a NYS Initial Certificate, or a master's degree in education and NYS Professional Certification. Uncertified teachers are permitted to work in child care programs, including Head Start and Early Head Start, as long as they are enrolled in a study plan. Infant/toddler teachers must have a minimum of a high school diploma or GED and one year of documented paid work experience with infants and toddlers. Infant/toddler teachers, however, are encouraged to obtain a Child Development Associate (CDA) or an associate's degree in early childhood.[16]

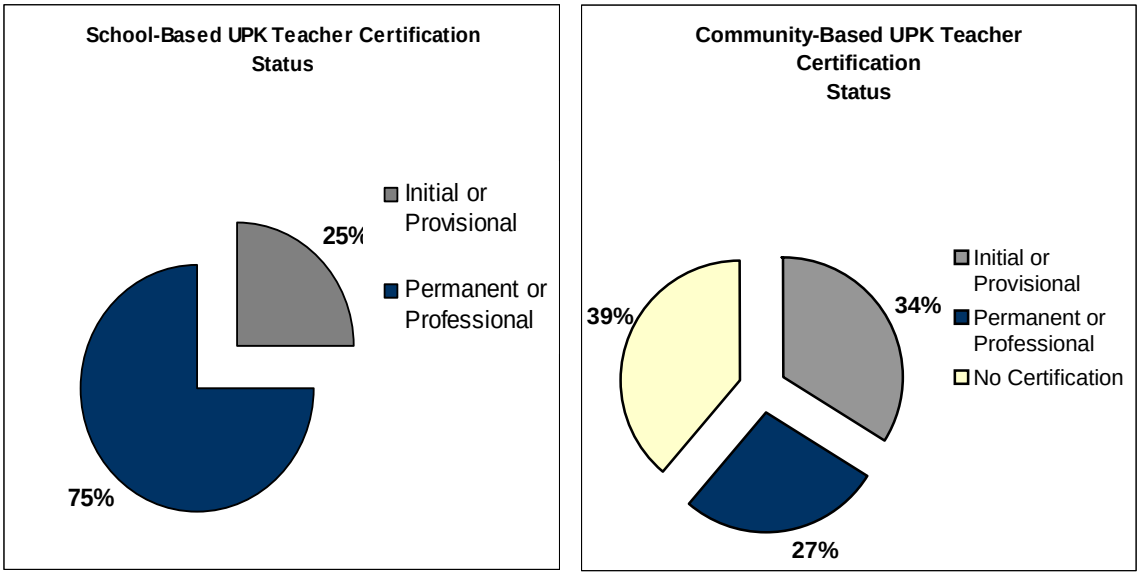
There are various types of teaching certificates, including initial and professional certificates (previously known as provisional and permanent certificates) as well as several pathways to certification. Among these routes is the study plan, which is sponsored by the NYC Department of Health and Mental Hygiene. The plan, which

includes a particular course of study as well as a timeline for completion, must be submitted by an accredited college. Approval of the plan is contingent upon supervision by a qualified educational director. Of those directors with staff on study plans, almost 90 percent monitor their employees, providing support and technical assistance when needed. The majority of directors reported that it takes more than two years for teachers to complete the process; a third claim completion times of between one and two years.

Nearly a quarter of teachers and a small percentage of assistant teachers in community-based programs are currently pursuing study plans. Many teachers seem to view the process as challenging, with nearly half reporting that they find it somewhat difficult and nearly a third, extremely, or very, difficult. Most difficult are the financial constraints of the process and passing the certification exams. Finding and registering for the necessary courses is also a challenge.

Certification rates vary enormously according to setting and age of children served.[17] Seventy-five percent of lead teachers in school-based UPK programs hold permanent or professional certification. Combining teachers with permanent/professional certification with those holding intitial/provision certification yields a 100 percent overall certification rate. This stands in stark contrast to their community-based counterparts, 27 percent of whom are permanently certified, 34 percent provisionally certified, and 39 percent uncertified (see Figure 10).

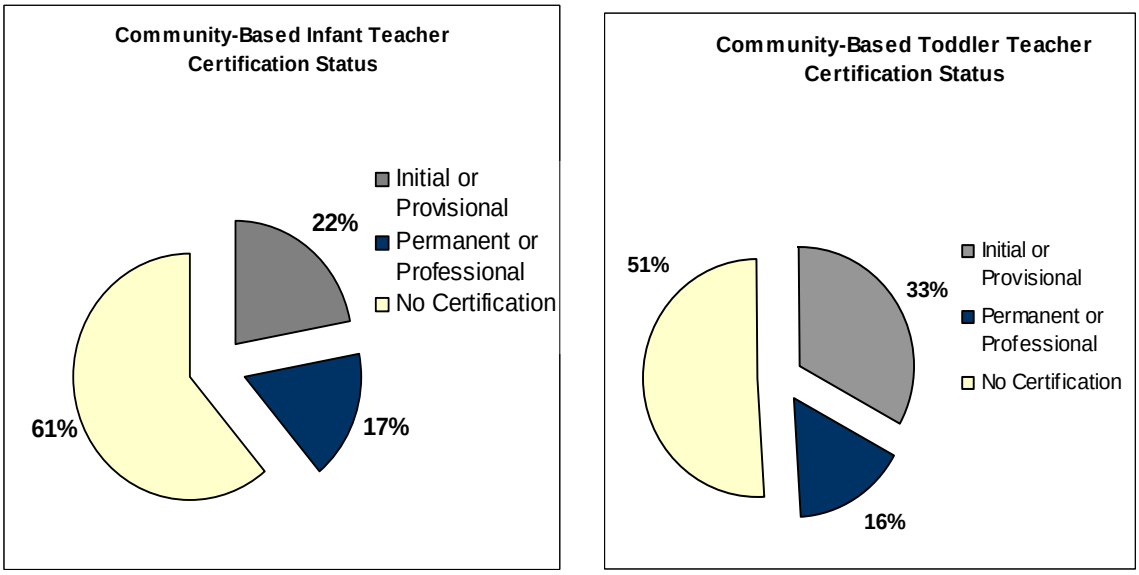
Figure 10



Levels of certification shift dramatically downward with teachers of toddlers and infants. Of those who work with toddlers (18 months to three years), only 16 percent

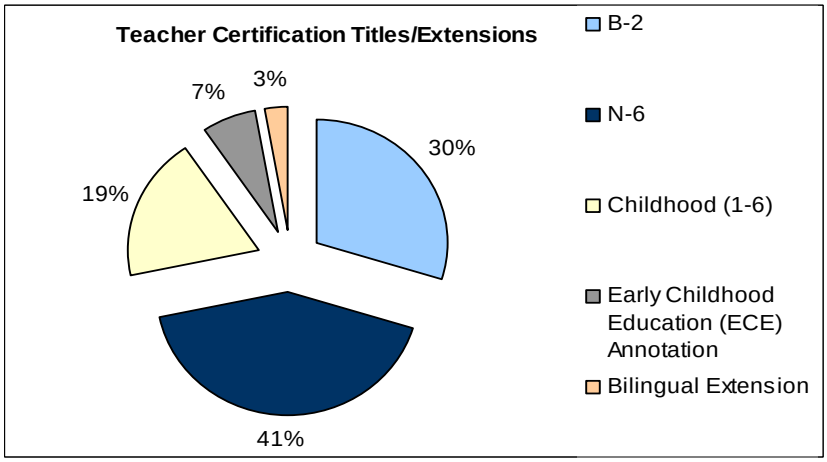
hold permanent/professional certification and 51 percent are not certified. (Of these, slightly more than half are currently working towards certification.) Of teachers who work with infants (birth to 17 months), 17 percent hold permanent/professional certification and 61 percent are not certified (see Figure 11).

Figure 11



Completing the overall profile of teachers' certification status are the titles and prevalence of certification and extensions, depicted in Figure 12. Our research revealed that while the N-6 certification remains most common, more than a quarter of all certified teachers now hold the relatively new birth to grade 2 certificate. The bilingual extension is rare.

Figure 12



Assistant Teachers

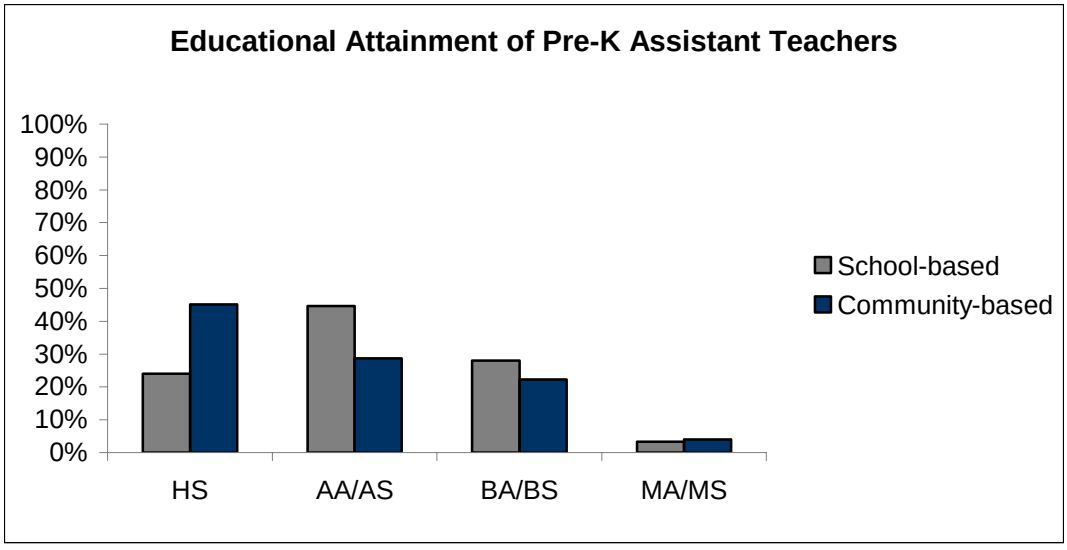
Educational Requirements

The current DOHMH regulation requires that assistant teachers have at least a high school diploma, a CDA, or 60 college credits. In both community- and school-based UPK programs, those with a high school degree are required to have college credit hours after three or more years of employment.

Educational Background

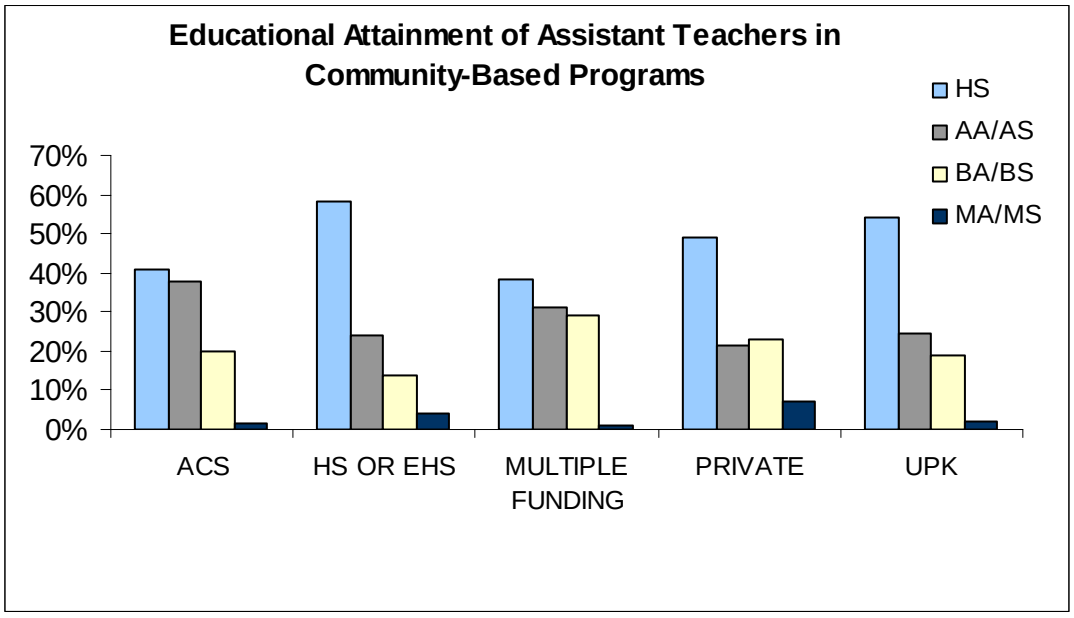
As with teachers, levels of educational attainment for assistant teachers vary across school- and community-based settings.[18] In general, assistant teachers are much less likely to hold higher education degrees than their colleagues who are lead teachers. Overall, only a small proportion hold master's degrees; about a quarter, bachelor's; nearly a third, an associate's degree; and less than half, a high school degree or the equivalent. Nearly half of school-based assistants have associate's degrees, and more than a quarter have bachelor's degrees (see Figure 13 for a comparison, across settings, of the educational attainment of pre-K assistant teachers, or those who serve three- to six-year-old children.).

Figure 13



A look at the various community-based programs reveals that assistant teachers who have had no more education than high school are most commonly found in Head Start programs, followed by UPK and private programs (see Figure 14).

Figure 14



Slightly less than half of assistant teachers with a higher education degree can claim specialization in early childhood. It is interesting to note the early childhood emphasis among community-based assistant teachers with associate's degrees, and among school-based assistant teachers with master's degrees. The lack of early childhood degrees at the bachelor's level is also quite striking (see Table 3).

Table 3

Specialization in Early Childhood Education: Assistant Teachers with Degrees

	Associate's Degrees		Bachelor's Degrees		Master's Degrees	
	Community	School	Community	School	Community	School
ECE	70.1%	45.2%	25.8%	32.1%	30.8%	60%
Other than ECE	29.9%	54.8%	74.2%	67.9%	69.2%	40%

About a third of all assistant teachers are currently enrolled in college. Of these 19 percent are taking non-matriculating courses; 25 percent are pursuing associate's degrees; 41percent are enrolled in bachelor's programs; and 16 percent are in master's programs. The majority of those pursuing higher education are specializing in early childhood (see Table 4).

Table 4

Specialization in Early Childhood Education: Assistant Teachers Currently Enrolled in College

	Associate's Degrees		Bachelor's Degrees		Master's Degrees	
	Community	School	Community	School	Community	School
ECE	66.7%	83.3%	61.9%	63.2%	75%	85.7%
Other than ECE	33.3%	16.7%	38.1%	36.8%	25%	14.3%

Levels of Certification

Assistant teachers are required to hold a temporary, continuing, or Level I, II, III, or Pre-Professional, Certificate in order to work in a public school. Certification is sponsored by the New York State Department of Education. Individuals wishing to pursue certification must pass the Assessment of Teaching Assistant Skills Test (ATAS), which measures candidates' knowledge and skills in reading,, writing, mathematics and instructional support, and have at least a high school diploma or equivalent, some early childhood college courses (the number of credits depends on the certification level) and experience in the field.

While most assistant teachers are not certified, overall they generally hold either a certificate or have a degree in higher education. Again, there is a marked disparity between school- and community-based settings[19], with 30 percent of school-based UPK assistant teachers reporting certification, as compared to 16 percent in community-based programs. In school-based UPK programs, 35 percent of assistant teachers hold a CDA; in community-based settings, the proportion is 24 percent.[20] Of those not certified, 26 percent of school-based and 15 percent of community-based assistant teachers are working on the process.

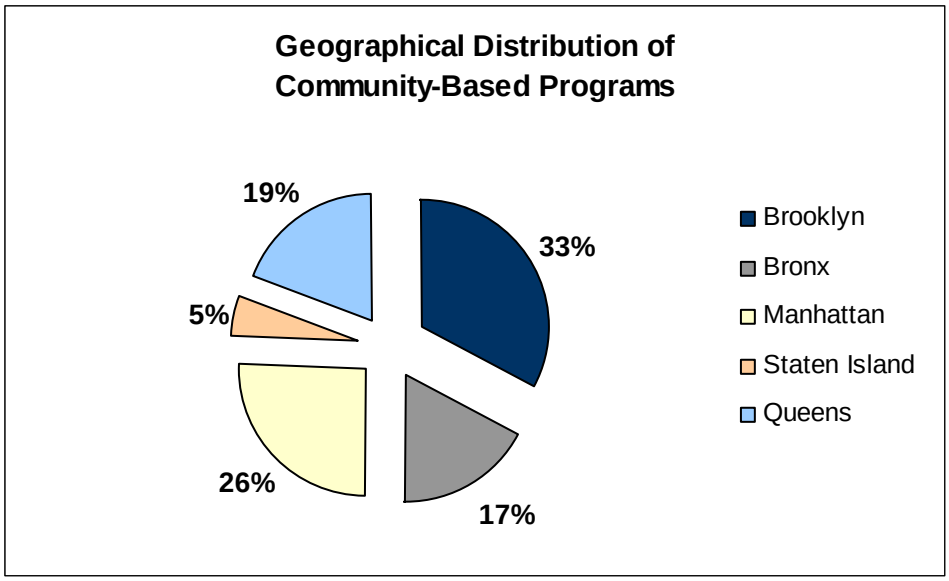
WHERE DO EARLY CHILDHOOD EDUCATORS WORK AND WHOM DO THEY SERVE?

ECE educators throughout the city work in a wide variety of settings including Head Start and Early Head Start, public and private community-based child care centers, community- and school-based pre-kindergarten programs, and homes. They serve infants, toddlers, and preschoolers, many of whom speak a growing number of languages and have other learning needs that require targeted educational services.

The Programs

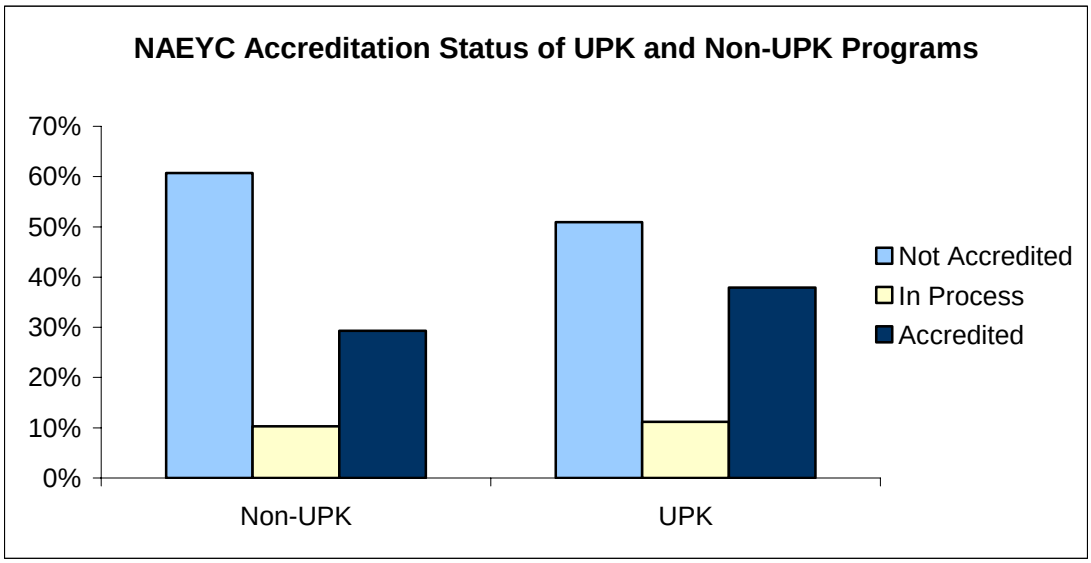
For this study, program characteristics were provided by community-based centers whose directors responded to our survey. Programs with extremely limited resources were less likely to respond given restraints on time and staffing, ultimately reducing their ability to contribute to the common good. Thirty-two percent of the programs are from Brooklyn, 25 percent from Manhattan, 17 percent from the Bronx, 19 percent from Queens, and a little over five percent from Staten Island (see Figure 15).

Figure 15



About half of these centers contain UPK programs, and approximately a third operate an accredited program.[21] Interesting to note is that nearly 40 percent of centers with UPK programs are accredited compared to 30 percent of those without UPK classrooms. Although accreditation is not a requirement for UPK funding, accredited centers are more frequently selected to run UPK programs, perhaps because their directors are driven to pursue higher levels of quality through the accreditation process (see Figure 16).

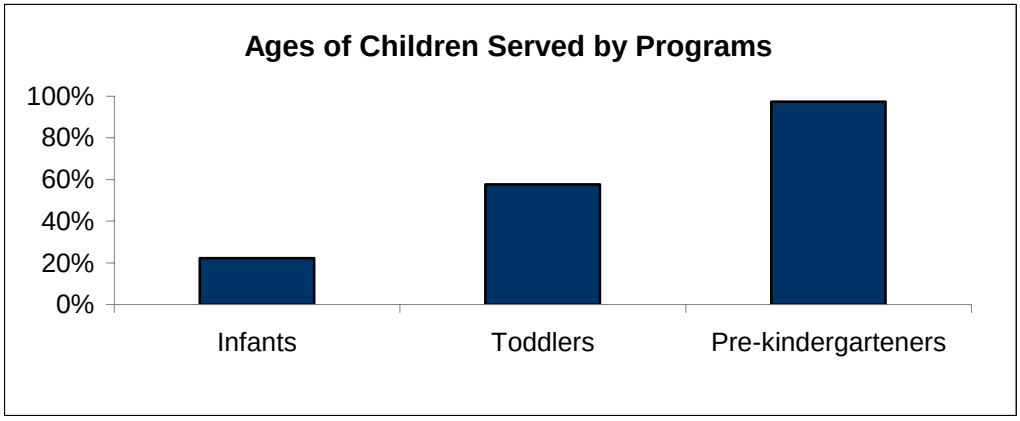
Figure 16



The Children

Our picture of the children in NYC's early childhood programs emerged from reports provided by directors of community-based centers and teachers from community- and school-based settings. Community-based program directors reported a total of 20,589 children enrolled in their centers. An average of 90 children are served per community center, ranging from 6 to 675. Nearly all of the centers serve pre-kindergartners; more than half, toddlers; and approximately one in five, infants (see Figure 17). Seventy-five percent of responding directors reported that their centers serve at least one child with special needs and 82 percent serve children who are English Language Learners.

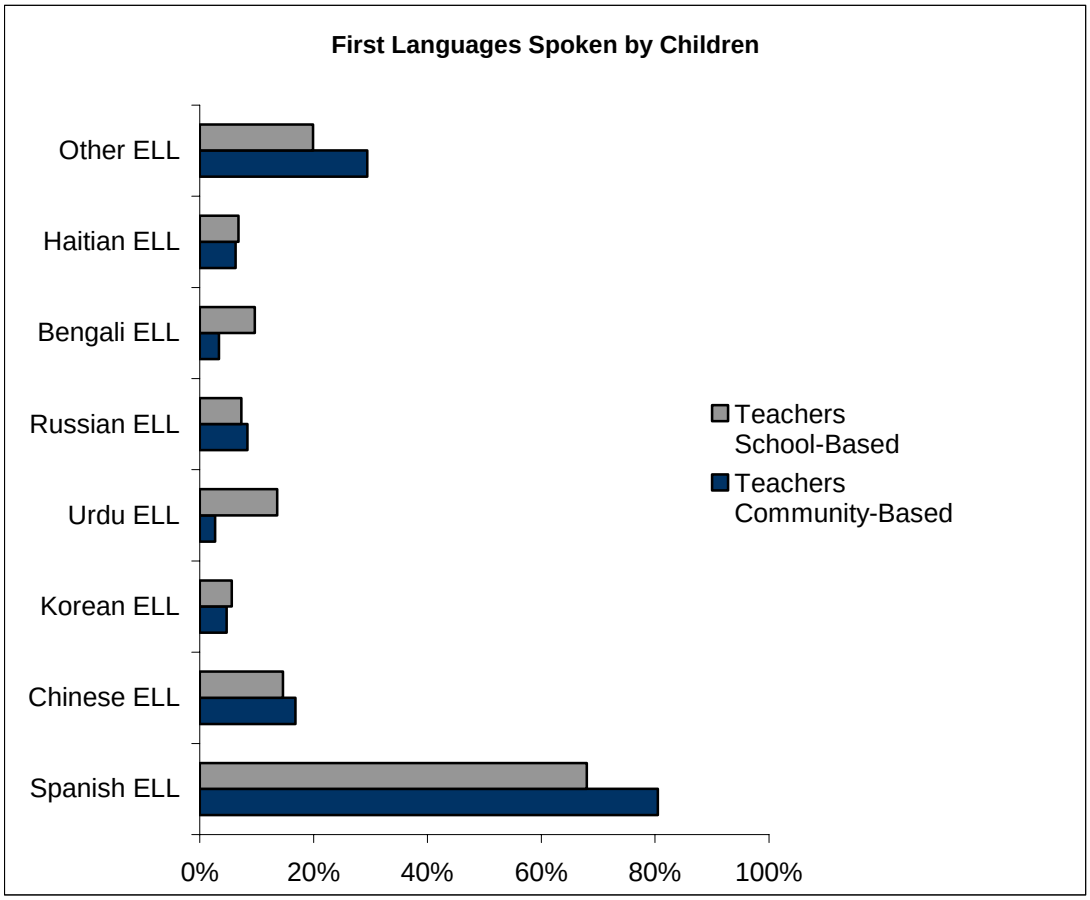
Figure 17



Teachers reported a total of 9,173 children in community-based UPK programs and 8,535 children in school-based UPK programs, with an average number of 22 children per classroom across settings. Four percent of community-based teachers serve infants; 22 percent, toddlers; and 81 percent, pre-kindergartners.

Nearly 90 percent of community-based teachers serve at least one English Language Learner, approximately ten percent more than their colleagues in school-based settings. Teachers reported an average of seven and a maximum of 30 English Language Learners in classrooms across settings—a challenge that is reflected in the presence of ELL as a professional development topic for workshops and other training (see *Professional Development for Staff* under **What are the Needs of Early Childhood Educators**?) Just about 80 percent of community-based teachers and 68 percent of those who are school-based reported Spanish as the first language spoken by their children. Other languages include Chinese, Korean, Urdu, Russian, Bengali, and Haitian (see Figure 18).

Figure 18



Seventy-eight percent of community-based teachers and 60 percent of their school-based colleagues have at least one child diagnosed with a special learning need that requires support to meet social and emotional and/or speech and language goals. Teachers were also asked about students who were not yet diagnosed, but whom they suspected would likely be diagnosed as needing targeted educational services. Most teachers across settings (90 percent community-based and 95 percent school-based) had concerns about the development of at least one child in their classroom that had not yet been referred.

WHAT ARE THE NEEDS OF EARLY CHILDHOOD EDUCATORS?

The needs of early childhood educators are diverse and urgent, with compensation and professional development high, if not at the top, of the list. As already noted, and as our survey confirmed, wages for early childhood workers are abysmally low and compensation varies enormously across settings, with glaring gaps between community-based programs and those in the public schools. Only 18 occupations out of nearly 800 annually surveyed by the Bureau of Labor Statistics report lower average wages, including service station and locker room attendants and bicycle mechanics[22]--sobering data, indeed. Moreover, the exceedingly high cost of living in New York City only exacerbates this problem.

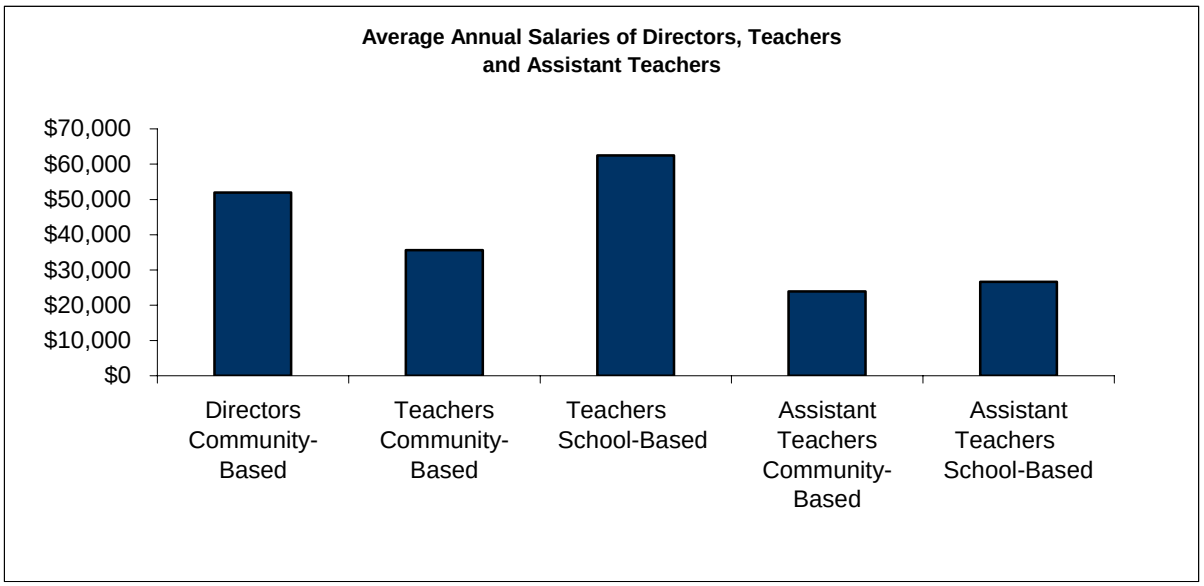
Compensation and Benefits

Overall, in New York City, directors in community-based programs are earning from $16,000 to $120,000, with an annual average of $52,000. Those in private and UPK centers command the highest average salaries, or about $60,000, followed by directors at Head Start and Early Head Start programs, at $54,000, and directors at ACS, who earn about $51,000. Their colleagues at multiple-funding programs come in at just under $50,000.

Overall, community-based teachers' salaries range from $13,000 to $74,000, with an annual average of $36,000—significantly less than their colleagues in school-based programs, who average nearly $27,000 more, with salaries ranging from $24,000 to $96,000. The differences are most striking among teachers carrying out parallel educational mandates in community- and school-based settings. Community-based pre-kindergarten teachers, for example, make only about *60 percent* of what their school-based colleagues earn, in spite of their similar responsibilities.

Among assistant teachers, those in community-based settings average about $3,000 less than their counterparts in the public schools, although their top salary exceeds that of public school assistant teachers by $20,000. Salaries range from $7,000 to $52,000 in community-based settings and $18,000 to $35,000 in the public schools (see Figure 19 for average salaries of directors, teachers, and assistant teachers).

Figure 19



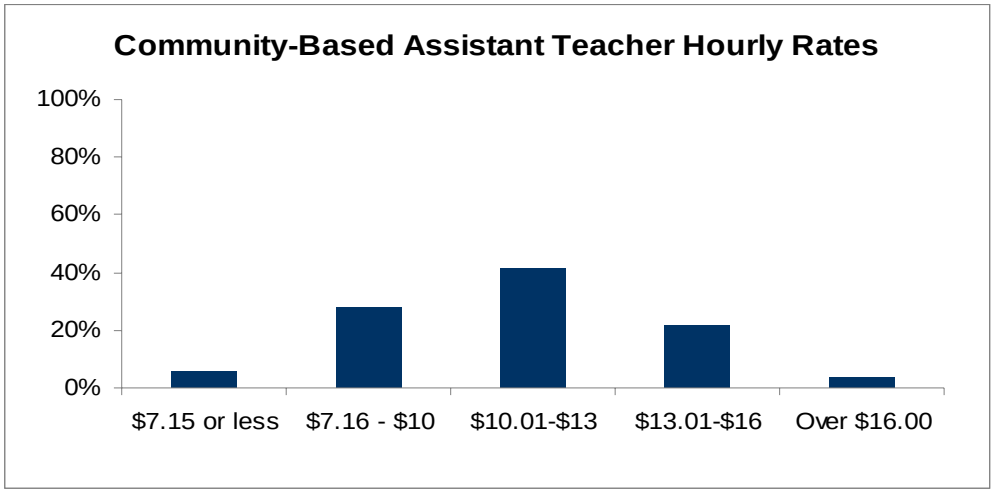
We also looked at community-based teachers who are compensated at hourly rates. Overall, these teachers earn from $8.00 to $21.60, with an average rate of just under $16 an hour. Those serving infants, toddlers or preschoolers make less than teachers serving pre-kindergartners, with an average difference of $2.33 per hour.[23] Community-based assistant teachers compensated at hourly rates make between $5 and $27 per hour, with an average rate of $11.50. However, most significantly, 91 percent of assistant teachers make between $7 and $13 an hour, making it impossible to manage a family in New York City. Their wages put them right in line with their colleagues—both child care workers and preschool teachers[24]—who make, respectively $8.32 and $10.45 per hour across the country (see Table 3 and Figure 20).[25]

Table 3

Range of Hourly Rates and Salaries for Teachers and Assistant Teachers

	Teachers Community-Based	Teachers School-Based	Assistant Teachers Community-Based	Assistant Teachers School- Based
Lowest Hourly Rate	$ 8.00	NA	$ 5.00	$ 11.17
Highest Hourly Rate	$ 21.60	NA	$ 17.23	$ 17.65
Lowest Salary	$13,000	$ 24,000	$11,000	$18,174
Highest Salary	$74,000	$ 96,000	$52,000	$35,000

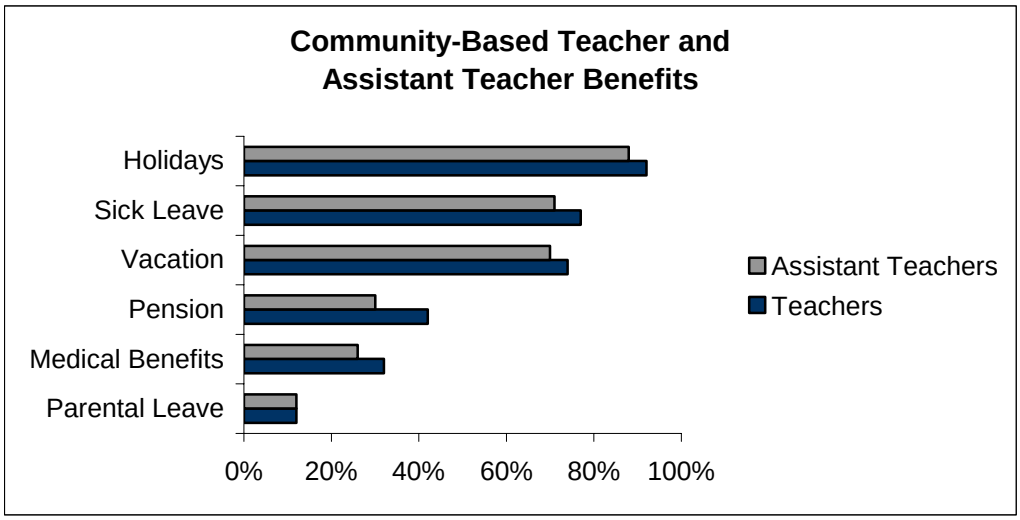
Figure 20



The benefits picture, unsurprisingly, reflects some of the same disparities that characterize compensation among community- and school-based settings. Teachers and assistant teachers working for the DOE and affiliated with the United Federation of Teachers (UFT) can rely on a substantial set of benefits. Paraprofessionals or assistant teachers employed by the DOE regularly and for more than 20 hours per week receive health and welfare benefits including health insurance, health care flexible spending accounts, dependent care assistance and transportation benefits.

The majority of community-based teachers and assistant teachers, both salaried and hourly-wage employees, receive basic benefits such as health insurance, vacation and sick leave. Pensions and parental leave, however, are rare (see Figure 21).

Figure 21



Factors that Affect Compensation

In our research, we explored a number of factors that might affect compensation levels, among them union membership. Interesting to note is that the 29 percent of community-based directors who belong to a union reported lower annual salaries, on average, than their colleagues who are not union members.[26]

All teachers and assistant teachers employed by the Department of Education are unionized, as compared to almost half of all community-based teachers and assistant teachers. Those community-based teachers who do have union benefits receive an average annual salary of around $37,000, approximately nine percent more than their non-union colleagues.[27] Assistant teachers with union benefits, however, receive an average annual salary of approximately $24,000, which, as in the case of directors, is actually lower than the average annual salaries of their colleagues who are not union-affiliated.

Our research provided dramatic evidence of the dominance of program setting as a predictive factor of salary level. Overall, those teaching in public school settings are earning 40 percent more, on average, than their counterparts in community-based settings. Other possible factors include age of teacher, years spent in the field, educational and certification levels, and age of children served.

Our analysis of these factors among community-based teachers of infants and pre-kindergartners revealed educational level to be the strongest factor, followed by certification level. Unrelated to salary rate were age of children, age of teachers, and years spent in the field.[28] Among school-based teachers, length of time in the field and certification level were equally strong predictors, followed by teacher's age.[29]

Among community-based assistant teachers, length of time working in the field and education level proved significant. [30] Unrelated to salary rate were ages of children served and level of certification. Among school-based assistant teachers, the only variable that predicted salary rate was length of time in the field.

Professional Development

The quality, content, and accessibility of professional development continue to be significant challenges for the field. Myriad federal and state programs and policies have different requirements for professional development as well as diverse mechanisms and levels of support for training, educating, and supporting the early childhood workforce.[31] The findings of PDI's needs assessment of New York City's early childhood workforce, *Learning About the Learners*, conducted in 2005, illuminate some of these challenges on the ground, including gaps in the supply of accessible training; minimal quality control of trainers and training; inadequate support for those undergoing the certification process; limited use of financial resources for training; and the overall lack of cohesion of professional development options.[32]

Professional Development for Directors

Most directors (92 percent) reported having attended at least one professional development workshop during the previous year, and just about three quarters indicate a need for additional professional development. Among the most common professional development workshops attended by directors are those on staff development, staff management and child abuse/mandated reporting (see Table 5). Additional training needs were reported in the areas of staff development and management and using assessments to document learning. Interestingly, a comparison of directors providing contracted UPK services for New York City school districts with those who are not providing those services revealed that non-UPK directors were more likely to report needing additional professional development (see Figure 22).

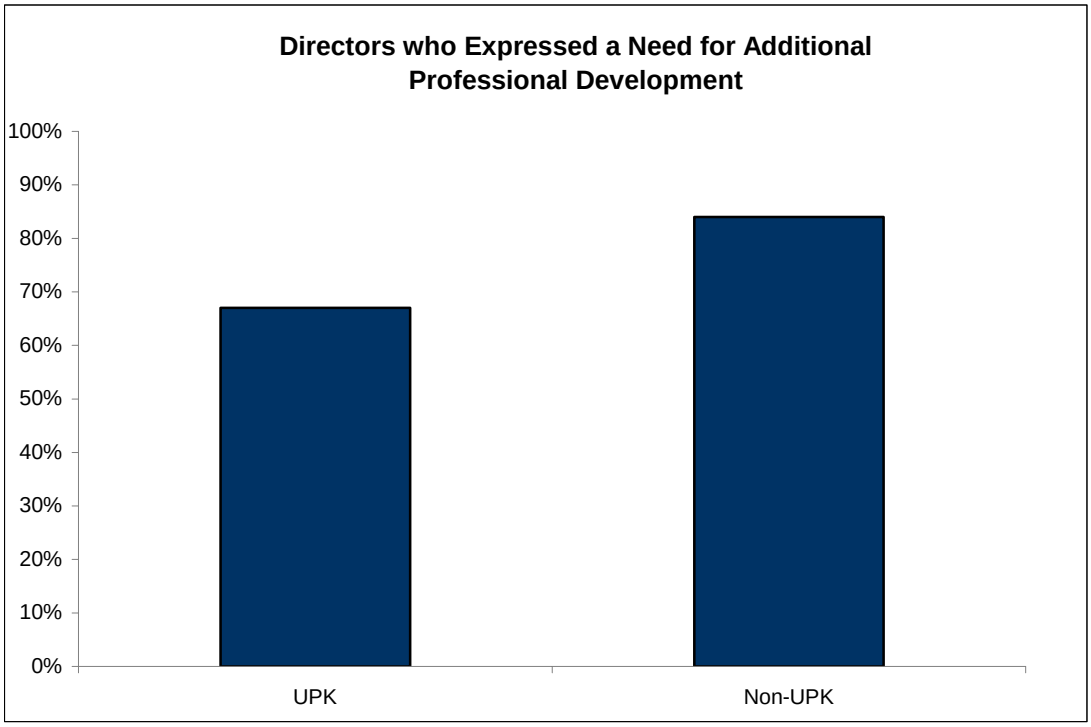
Table 5

Workshops Attended by Directors	
Teaching Practices	
Using assessments to document learning	36.5%
Learning Differences/Special Education	42.8%
ELL/LEP	7.2%
Working with Families	41.8%
Supervising Staff	
Staff Management	52.4%
Staff Development	55.3%
Operations	
Fundraising/Grant Writing	11.1%
Business Operations	16.3%
Program Development	45.7%
Accreditation	31.7%
Requirements	
Child Abuse/Mandated Reporting	47.6%
MAT	29.3%

When asked about specialized management workshops, 60 percent of directors reported that they had been to a management workshop at some point in their careers; a little more than half (53 percent) reported having been mentored by another program director. Given that more than 90 percent of directors have had no management training prior to assuming their positions, these workshops and mentoring experiences are critical. This level of training would be considered unacceptable in any other profession. Moreover, nearly a quarter of directors in UPK sites did not express a need for additional professional development. One of the goals of the PDI is to help all early childhood practitioners to realize the value of

ongoing professional development (including lifelong education). Indeed, a well-trained leadership would go a long way toward ensuring effective advocacy, excellence in programming, and, ultimately, superior child outcomes.

Figure 22



Professional Development for Staff

Directors in community-based settings budget an average of $2,452 annually to support the professional development needs of their staff. The most common workshop offerings are CPR/first aid, curriculum development, and assessment/observation skills. Least common are CDA, working with English Language Learners, and teaching certification test preparation, which is notable, given the substantial number of teachers who both serve English Language Learners and report great difficulty in passing certification tests.

Once again, it is interesting to note the differences across settings, which prevail, across the board, in the larger profile of the early childhood workforce. Most of the teachers and assistant teachers in community-based programs, and practically all of their counterparts in school-based programs claim to have attended a professional development workshop during the previous year. However, the focus of their professional development differs. School-based teachers and assistant teachers, for example, are more likely to attend workshops on creative arts, language/literacy, and curriculum development, while their community-based colleagues are more likely to attend workshops on CPR, abuse/maltreatment, and curriculum

development (see Table 6). Moreover, while mentoring is more prevalent among school-based teachers,[33] more community-based teachers reported that they had acted as mentors themselves,[34] and more than half expressed interest in being mentored.

Table 6

Workshops Attended by Teachers and Assistant Teachers		
	School-Based	**Community-Based**
Teaching Practices		
Creative Arts	77%	35%
Language/ Literacy	65%	28%
Curriculum Development	58%	33%
Assessment/Observation Skills	48%	32%
Developmentally Appropriate Practice	44%	21%
Behavior Management/ Discipline	37%	32%
Children and families		
Child Development	35%	21%
English Language Learners	22%	6%
Infants & Toddlers	7%	14%
Special Needs/ Special Education	19%	22%
Working with Families	23%	14%
Children at Risk		
Abuse/ Maltreatment	27%	39%
Community Violence	28%	14%
Certification/Credentials		
Certification Test Preparation	21%	10%
CDA (Child Development Associate)	4%	8%
Requirements		
Mandated Reporting	35%	22%
CPR	18%	50%
Health and Safety	10%	16%
Other Workshops	**7%**	**6%**

A larger proportion of community-based teachers (68 percent) and assistant teachers (75 percent) indicated a need for additional professional development than their counterparts in schools (54 percent of teachers; 70 percent of assistant teachers). The most frequently cited training needs for community-based educators were behavior management, curriculum development, learning differences/special education, and assessment/observation. Interestingly, school-based educators did not include curriculum development among their training needs, which may be attributable to their higher levels of education and certification. Interesting to note is the low level of priority given to ELL workshops.

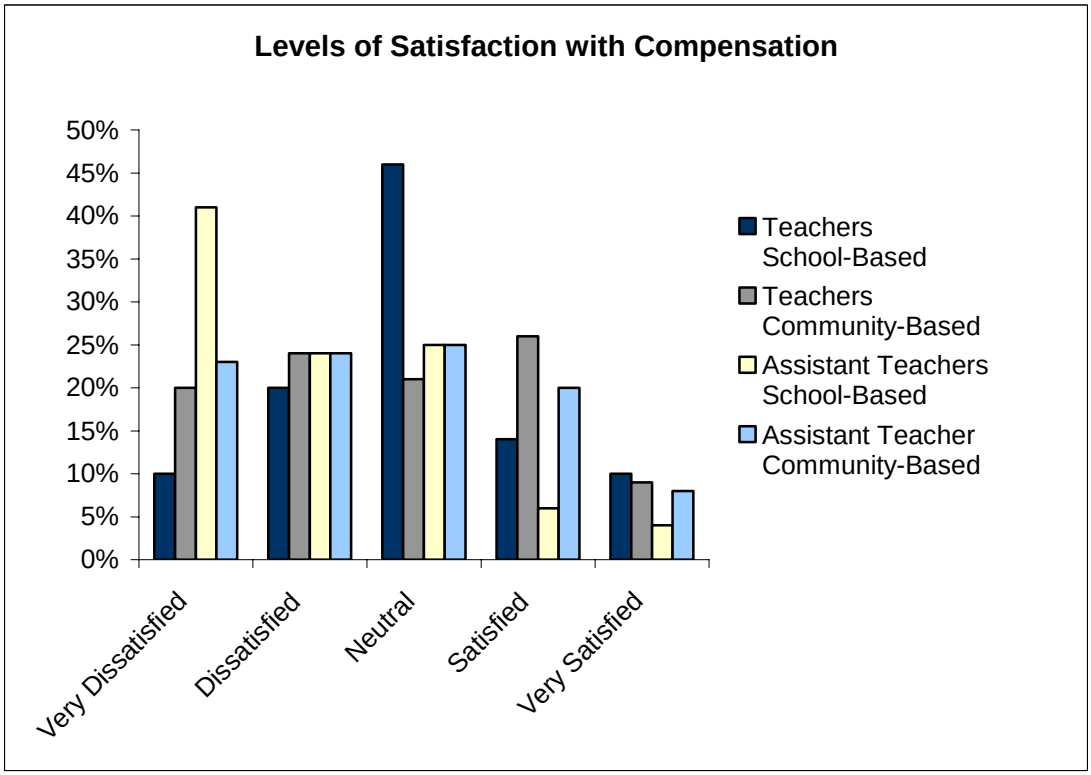
Job Satisfaction, Retention, and Turnover

In the early childhood field at large, job satisfaction can be elusive, with inadequate compensation and benefits often cited as a critical factor in turnover.[35] Indeed, turnover within the field is rampant—the annual rate has long hovered around 30 percent [36]--and more than three quarters of New York City's directors, our survey revealed, express significant concern about the retention of their staff.

It was therefore surprising to find that a substantial portion of the educators we surveyed expressed the highest level of satisfaction with their jobs. Roughly 60 percent of teachers and assistant teachers in both community- and school-based programs claimed they were very satisfied in their positions—in spite of notable degrees of dissatisfaction with levels of compensation among particular groups across settings.

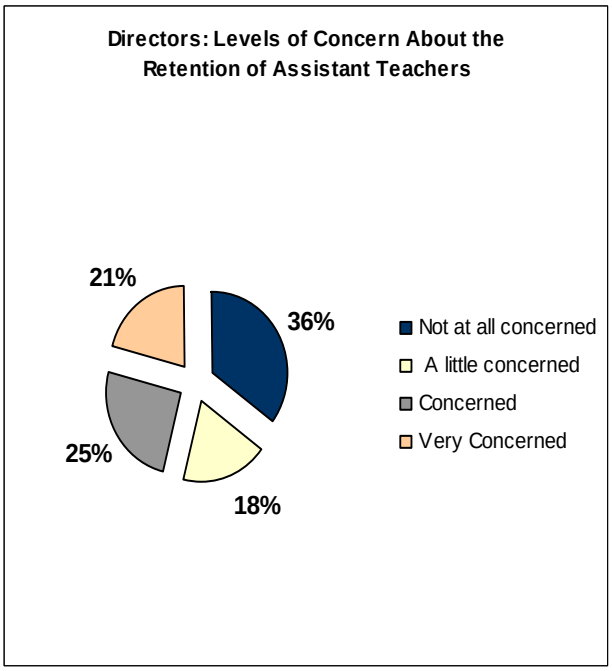
In examining the effect of salary level on satisfaction, we found, not surprisingly, that satisfaction with pay tended to be greater among those with higher salaries in both community- and school-based settings.[37] The significant disparities in compensation across settings (see section on **Compensation and Benefits**) clearly resonate in the overall levels of satisfaction with pay rate among teachers. Nearly half of all community-based teachers (44 percent) reported dissatisfaction with their salaries, with a good proportion (20 percent) claiming that they are very dissatisfied. Less than 30 percent of public school teachers, on the other hand, reported dissatisfaction, with under 10 percent very dissatisfied. Dissatisfaction with compensation was particularly strong among assistant teachers, regardless of setting,[38] with higher levels among public school employees, 65 percent of whom expressed dissatisfaction with their pay (see Figure 23).

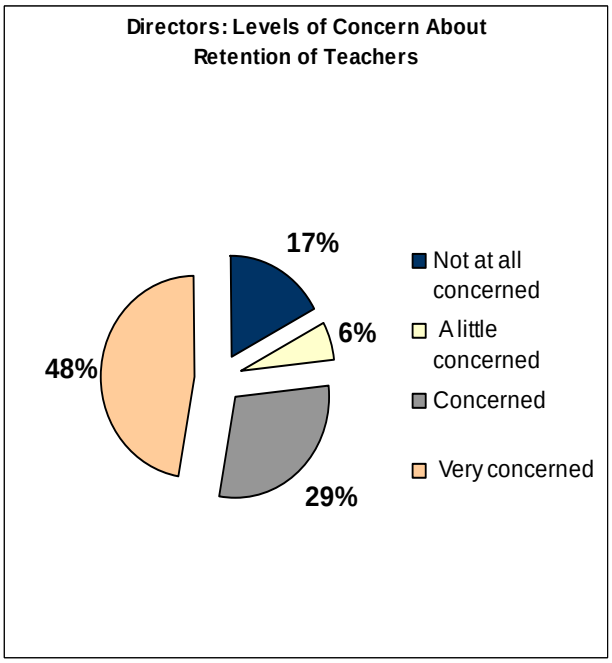
Figure 23



Teachers' claims of high levels of overall job satisfaction seem to belie the reality of turnover. Directors remain significantly concerned about retention and turnover. At the time of our survey, more than 20 percent of directors reported anywhere from one to seven job vacancies for teachers, and as many as 15 for assistant teachers. Nearly half of all directors reported experiencing the turnover of as many as eight teachers and 15 assistant teachers during the previous year, and almost a quarter lost teachers to the Department of Education. In addition, more than three quarters of directors claimed that they were very concerned or concerned about retention of their teachers (see Figure 24). They are also concerned, in particular, about recruiting teachers with expertise in infant/toddler care, early childhood education, learning differences/special education, and ELL/LEP education.]

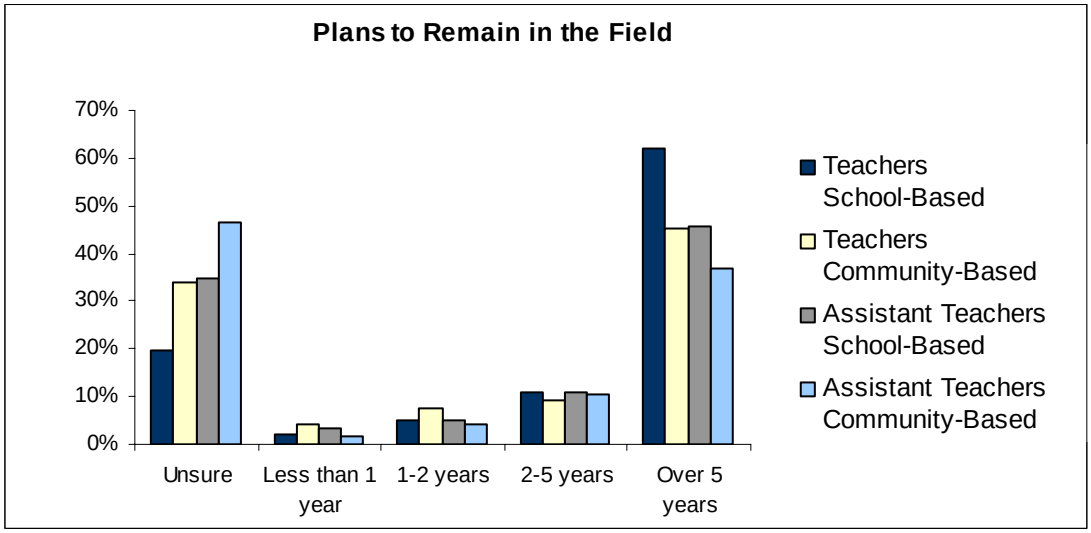
Figure 24





The responses from teachers concerning their plans for remaining in the field are not reassuring. School-based teachers were more likely to plan to remain in the field for over five years, and less likely to be uncertain of their plans, than their colleagues in community-based programs. Most assistant teachers plan to remain in the field at least one or more years. However, more than a third of school-based and almost half of community-based assistant teachers are unsure about whether or not they will remain in the field (see Figure 25).

Figure 25



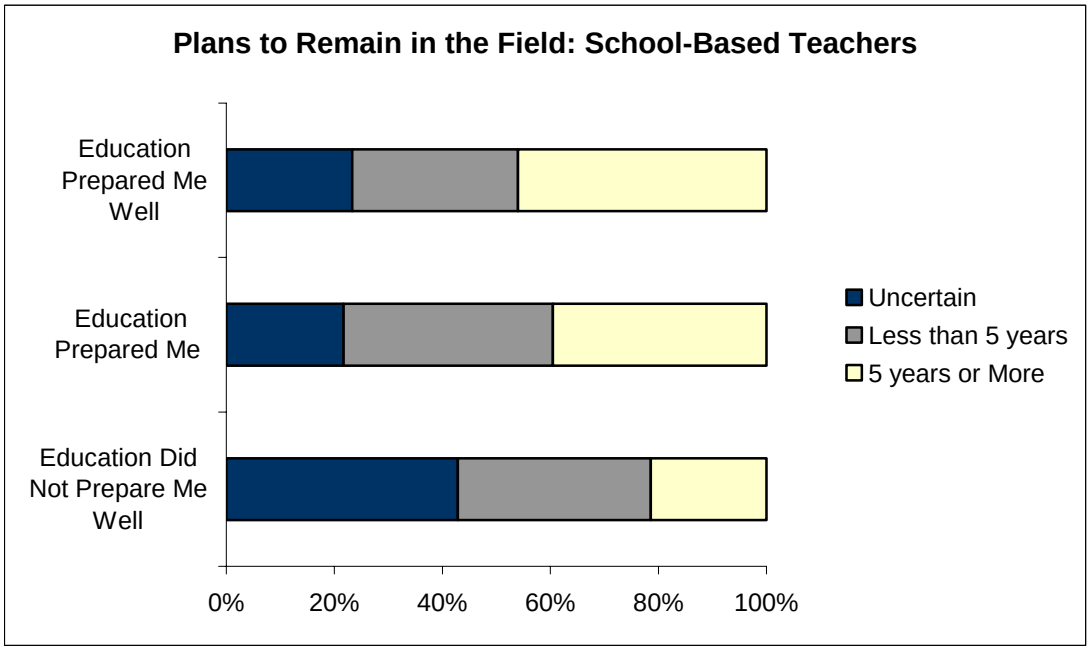
When asked about their future plans *within* the field, 41 percent of community-based assistant teachers planned to remain in the same position, 34 percent hoped to become a head teacher, and 29 percent expected to work at the Department of Education. By contrast, the majority of school-based assistant teachers planned to continue in their positions at the Department of Education, with only the rare teacher considering the possibility of employment in a community-based program.

Factors Affecting Teachers Plans to Remain in the Field

In our research we explored a number of factors that predict teacher plans to remain in the field, including levels of compensation, job satisfaction and certification, and perceptions of how well their education had prepared them to work in the field.

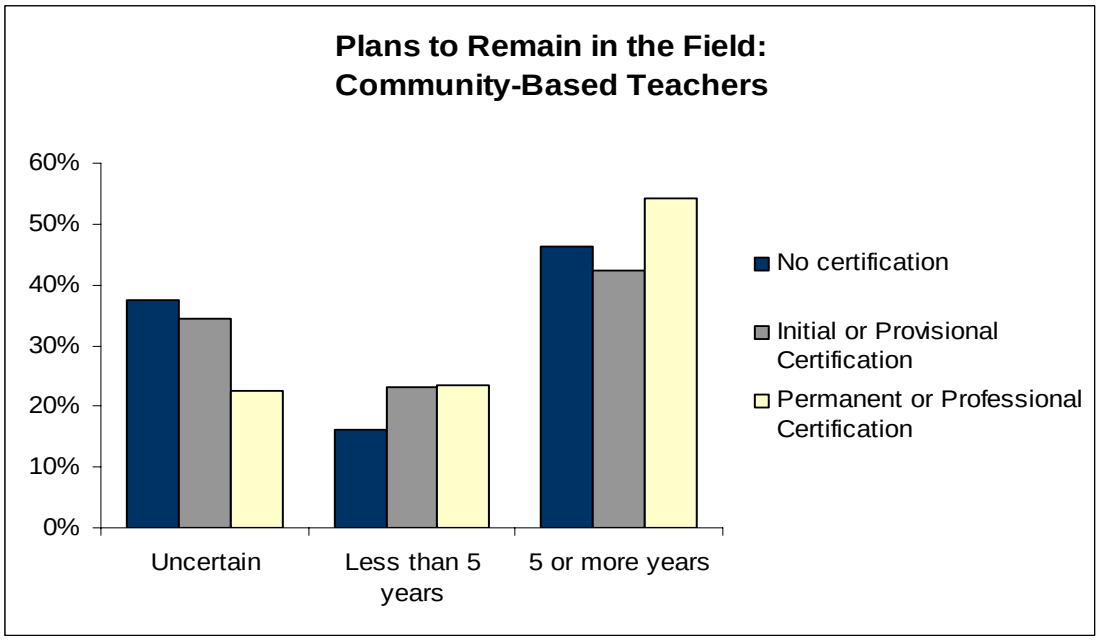
In school-based programs, teacher plans were linked with the perception of how well their education had prepared them for work in the field. Those with positive views of their educational preparation were more likely to plan to remain in the field for five or more years, and less likely to be uncertain about their futures in the field.[39] (See Figure 26). However, a substantial percentage of teachers reported that they were "very poorly" and "somewhat poorly" prepared. As professors in higher education continue to develop programs to meet the needs of the next generation of teachers, such data must be part of their deliberations.

Figure 26



In community-based programs, teacher plans were significantly related to level of certification (see Figure 27). Those with permanent or professional certification were most likely to plan to remain in the field five years or more, and least likely to be uncertain about their plans.[40]

Figure 27



CONCLUSION

We embarked on this study in search of a clearer picture of New York City's early childhood professionals. Our research has been fruitful, expanding our knowledge of the workforce, suggesting areas of further inquiry, and providing a foundation for application in policy and practice. The study also provides a blueprint for the city and state as we continue to plan and build a comprehensive system of training and professional development that supports high-quality services for all our city's children and their families.

APPENDIX

Study Methodology

A survey methodology was used for data collection. The sampling unit was community- and school-based early childhood centers.

Sampling Population

The survey population consisted of 2,727 licensed community- and school-based early childhood centers in New York City serving children birth to five years old. The list of licensed community-based centers was provided by the city's licensing agency, the New York City Department of Health and Mental Hygiene, and included 2,202 licensed community-based programs. The 525 universal pre-kindergarten school-based programs were reached through professional development meetings provided by New York City Department of Education staff.

Sampling Frame

A proportionate random sample of the centers was selected in such a way as to ensure sufficient representation from various types of community-based programs (Head Start/Early Head Start, Universal Pre-Kindergarten, Administration for Children Services, Private, and blended/multi-type). This required that selection of the sample be undertaken in proportions that reflected the distribution of centers across those program types. The initial sampling frame consisted of 50 percent of licensed and registered community-based facilities (1,096 centers), selected randomly within each of the community-based program types. Thus, the community-based sampling frame contained 96 Administration for Children's Services (ACS) centers, 200 Universal Pre-Kindergarten (UPK) centers, 107 Head Start (HS) or Early Head Start (EHS) programs, 148 blended/multi-type centers (ACS, UPK, HS, and/or EHS), and 545 private centers, all located within the five boroughs of New York City. All of the school-based universal pre-kindergarten programs, 525 programs from the five boroughs and 10 school districts, were included in our sampling frame.

Once the effort to contact community-based centers began, a number were eliminated based on the following criteria: unreachable by physical address and telephone; closed for business; center did not serve children birth to five years old; or the center was listed more than once in the population list. With these centers removed, the final community-based sampling frame became 850.

Sampling Procedures

Community-based Centers

A packet with an instructional letter, an informational brochure, one director survey, 16 teacher/assistant teacher surveys (including six in Spanish) and 17 pre-stamped reply envelopes were mailed to the directors of the centers included in the sampling frame. Additional copies were available, if needed, and participants were given the option of completing the survey online.

Two weeks after the initial mailing, a reminder postcard was sent, and subsequently surveys were sent out in two additional mailings. A final outreach effort involved calling non-responding centers. Each center received at least two phone calls with the purpose of speaking with the director to remind them of the study and encourage them and their teachers and assistant teachers to participate. During the final outreach process, researchers sent additional surveys as needed.

School- Based Centers

The early childhood directors in each of the ten regions and in District 75 distributed surveys to their UPK teachers and assistant teachers. These directors received a letter of encouragement and support from the Department of Education, signed by Dr. Eleanor Greig Ukoli, Director of the Office of Early Childhood Education; an explanatory letter from the researchers; and sufficient number of teacher and assistant teacher surveys for each of their regions. Surveys in Spanish were provided and additional copies were made available. The regional early childhood directors invited their staff to participate in the study during their professional development days. Directors then forwarded the completed surveys to the NYC Early Childhood Professional Development Institute.

Study Participants

A total of 2,425 surveys were received from community- and school-based centers. Three hundred and forty-two different community-based centers participated, including the entire center types surveyed (community-based UPK programs, HS/EHS, ACS, blended/multi-type programs, and private centers). Responses came from assistant teachers (645), teachers (957), and directors (241). Five hundred eighty-two responses were received from school-based programs in each of the ten Department of Education regions and District 75.

Response Rate

Teachers, assistant teachers or directors from 40 percent of community-based centers in the sampling frame responded to our survey. However, responses varied (from 32 to 54 percent) across center types. Center directors responded from 27 percent of the centers, with a range of 20 to 38 percent, depending on center type (see Table 1).

Because the total number of community-based teachers and assistant teachers in these licensed programs is unknown, no response rate for teachers and assistant teachers could be calculated.

Table 1

Type of Center	Number of Centers	Responding Directors	Director Response Rate	Centers responding to survey (including teachers, assistant teachers and directors)	Overall Center Response Rate
ACS	78	43	31%	36	46%
UPK	174	54	27%	75	43%
HS/EHS	93	19	17%	39	42%
Blended/ Multi-Type	123	43	29%	66	53%
Private	382	82	15%	131	34%
TOTAL	**850**	**241**	**24%**	**347**	**40%**

Teachers or assistant teachers from 28 percent of school-based universal pre-kindergarten programs completed surveys. The response rate from each of the city's 11 educational regions ranged from four to 50 percent. Regions 4, 7, 8, 9 and 10 responded at levels that were less than 30 percent (see Table 2).

Table 2

Region	Number of Teachers and Assistant Teachers	Surveys Returned[2]	Response Rate
1	100	50	50%
2	160	71	44%
3	166	62	37%
4	164	10	6%
5	210	91	43%
6	194	81	42%
7	266	63	24%
8	316	14	4%
9	234	62	26%
10	158	34	22%
DC 75	119	35	30%
Region Unknown		9	
TOTAL	**2087**	**582**	28%

[2] In some regions, educators from community- based programs completed school-based surveys while attending professional development workshops for school-based *and* community-based Universal Pre-Kindergarten services. The surveys from these regions were carefully reviewed to make sure that *only* school-based staff were included. Consequently, the responses obtained from some regions are greater than the surveys used in the study. In all, 351 surveys were excluded because community-based educators completed surveys intended for school-based staff.

ENDNOTES

[1]Center for the Childcare Workforce. *Current Data on the Salaries and Benefits of the U.S. Early Childhood Education Workforce (*2004): http://www.ccw.org/pubs/2004compendium.pdf.

[2] A. Burton et al., *Estimating the Size and Components of the U.S. Child Care Workforce and Caregiving Population: Key Findings from the Child Care Workforce Estimate.* (Washington, D.C.: Center for the Child Care Workforce and Human Services Policy Center, 2002).

[3] Ibid.

[4] K Tout, M. Zaslow and D. Berry, "Quality and Qualifications: Links between Professional Development and Quality in Early Care and Education Settings," in *Critical Issues in Early Childhood Professional Development*, ed., M. Zaslow and I. Martinez-Beck, (Baltimore, MD: Paul H. Brookes Publishing Co., 2006), 77-110.

[5] S. L. Kagan et al., *The Early Care and Education Teaching Workforce: At The Fulcrum*, Summary Report, (Houston: Cornerstones for Kids, 2006).

[6] Center for the Childcare Workforce, *Current Data on the Salaries and Benefits of the U.S. Early Childhood Education Workforce.*

[7] K. Tout, M. Zaslow, and D. Berrry, "Quality and Qualifications: Links between Professional Development and Quality in Early Care and Education Settings."

[8] P. J. Bloom, "The Child Care Center Director: A Critical Component of Program Quality," *Educational Horizons* (Spring 1992): 138-145.

[9] K.L. Maxwell, L.C. Field, and R.M.Clifford, "Defining and Measuring Professional Development in Early Childhood Research," in *Critical Issues in Early Childhood Professional Development.*

[10] Ibid.

[11] M. Whitebook and D. Bellm*, Roots of Decline: How Government Policy Has De-Educated Teachers of Young Children*, (Berkeley: Center for the Study of Child Care Employment, Institute of Industrial Relations, University of California, 2006).

[12] S. L. Kagan et al., *The Early Care and Education Teaching Workforce.*

[13] P. J. Bloom, "The Child Care Center Director."

[14] T.N Talan and P.J. Bloom, *Program Administration Scale: Measuring Early Childhood Leadership and Management.* (New York: Teachers College Press, 2004).

[15] χ^2 (4, N = 821) = 154.737, p < .0001.

[16] The Department of Education does not provide services for children younger than two.

[17] χ^2 (4, N = 862) = 268.900, p < .0001.

[18] χ^2 (4, n = 821) = 154.737, p < .0001

[19] χ^2 (1, N = 518) = 10.64, p=.001.

[20] Only 265 of 645 respondents (41%) answered this question.

[21] Accreditation is obtained through NAEYC's voluntary accreditation system, which measures the quality of early childhood education programs against professional standards.

[22] Ibid.

[23] t (75) =-2.151, p=.035).

[24] Child care workers and preschool teachers are job titles defined by the Bureau of Labor Statistics.

[25] Center for the Childcare Workforce. *Current Data on the Salaries and Benefits of the U.S. early Childhood Education Workforce.*

[26] t (185)=2.561, p=.011

[27] t(331) = -2.782, p=.006

[28] These analyses were conducted using step-wise regression.

[29] Predicting Salary Rate Using Step-Wise Regression

Community-based Teachers			School-based Teachers		
Predictor Variable	**Beta**	**P-value**	**Predictor Variable**	**Beta**	**P-value**
Education level	.345	.0001	Time in the field	.319	.0001
Certification level	.213	.001	Certification level	.306	.0001
Infants served	.170	.002	Age	.225	.0001
Pre-K served	.130	.017	Education level	.153	.003

Community-based model: F (4, 294=29.698, p <.0001; Adjusted R^2 = .278; School-based model: F (1,252=98.631, p<.0001) . Adjusted R^2 = .604.

[30] Predicting Salary Rate Using Step-Wise Regression

Community-based Assistant Teachers			School-based Assistant Teachers		
Predictor Variable	**Beta**	**P-value**	**Predictor Variable**	**Beta**	**P-value**
Time in the field	.269	.002	Time in the field	.475	.0001
Education level	.239	.006			

Community based teacher F(2, 139=6.599, p =.002), adjusted R^2 = .074 ; School based teacher F(1,62=18.085, p<.0001), adjusted R^2 = .213

[31] M. Zaslow, "Charting a Course for Improved Professional Development Across Varying Programs and Policies," in *Critical Issues in Early Childhood Professional Development.*

[32] S. Blank et al., *Learning about the Learners: An Examination of Training for Early Care and Education Workers in New York City* (NYC Early Childhood Professional Development Institute, The City University of New York, 2006).

[33] χ^2 (2, 887) = 9.19, p=.01

[34] χ^2 (1, 882) = 6.30, p=.01

[35] A. Lowenstein et al., the *Effects of Professional Development Efforts and Compensation on Quality of Early Care and Education Services* (National Conference of State Legislatures, Child Care and Early Education Research and Policy Series: 2004).

[36] S. L. Kagan et al., *The Early Care and Education Teaching Workforce.*

[37] Pearson correlation: r=.31, p=.0001 and r=.125, p=.035, respectively.

[38] r=.239, p=.038.

[39] χ^2 (4, 379) = 20.772, p=.0001.

[40] χ^2 (4, 472) = 10.293, p=.036.

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