

**5.0 KINDERGARTEN THROUGH
THIRD GRADE
EXPERIENCES AND
OUTCOMES**

5.0 KINDERGARTEN THROUGH THIRD GRADE EXPERIENCES AND OUTCOMES

5.1 Organization of the Chapter

This chapter examines the elementary school experiences and progress of children who received preschool special education services during the six-year study interval (i.e., the “preschool cohort”) and compares these with findings for the “comparison cohort” of students who did not receive preschool special education services but who received special education services in kindergarten through third grade.

To conduct this examination, we addressed three general categories of inquiry:

1. What happened to children in the study who received preschool special education services? How many no longer needed special education services (i.e., were declassified)? How many of those children who continued to receive special education services after making the transition from preschool special education to kindergarten were placed in settings with non-disabled peers? As students in both cohorts progressed from kindergarten through third grade, how did placements differ between students in the preschool cohort and students in the comparison cohort?
2. For preschool cohort students, how did placement in kindergarten through third grade general education settings vary among students who received special education services in different preschool special education settings (PD-1/4) and preschool special education programs and services (PD-7) categories, and based on their school district’s origin according to New York’s Need/Resource Capacity (N/RC) categories?
3. As students who received preschool special education services moved through the grades, how did they progress academically, socially, physically, and emotionally in their educational settings? How did progress vary among students who were served in different preschool special education programs and services? How did progress vary among students based on their school district’s N/RC category assignment? Finally, how did their progress compare both with that of the comparison cohort and with that of preschool cohort peers who were declassified (i.e., discontinued their special education services) at some point during the study interval?

To respond to these questions, Chapter 5.0 is divided in three general sections. The first section follows students in the preschool cohort as they progressed from kindergarten through third grade, examining their placements in general education settings according to their PD-1/4 and PD-7 category and comparing their progress by preschool special education setting and special education programs and services category with the progress of the comparison cohort. Kindergarten through third grade placements for the

preschool cohort are also compared with placements for the comparison cohort.¹ Second, K-3 placements for both cohort samples, grade by grade, are compared in terms of their school's N/RC. The six N/RC categories are: New York City, the Large Four districts (Rochester, Syracuse, Yonkers, and Buffalo), Urban-Suburban High Need, Rural High Need, Average Need, and Low Need.

Third, student progress is examined based on three instruments completed by teachers for a sample of students in both cohorts—the Part A (Participation in General Education) measure, the Teacher-Child Rating Scale (T-CRS), and the Work Sampling System (WSS). These measures, administered at each grade level to students in the study, permitted an assessment of student progress and achievement in Language and Literacy Development, personal and peer social skills, cognitive and academic development, physical development, task orientation, behavior control, assertiveness, and Mathematical Thinking (i.e., mathematical reasoning). They also permitted comparisons between the two cohorts over the life of the study and a more detailed examination of teacher ratings for the preschool cohort. These findings were examined grade by grade, by preschool sample service type and N/RC category.

5.2 Student Placements in the General Education Setting, Kindergarten Through Third Grade, Comparing Preschool and Comparison Cohort Students by PD-1/4 Category (i.e., Settings)

As noted in Chapter 2.0, the study began with a stratified random sample of 5,598 students who received preschool special education services prior to entering kindergarten in either the 2001-2002 (preschool Cohort 1) or 2002-2003 (preschool Cohort 2) school years.

Exhibit 5-1 reports in the extreme left-hand column frequencies for preschool cohort students for whom PD-1/4 data were provided.² Moving left to right, the next set of columns (shaded) report kindergarten student status in three categories, respectively: (1) students who were excluded from the study due to having moved to a district not participating in the study or for whom districts were unable to provide data, (2) students who were declassified by the time they entered kindergarten, and (3) students who continued to receive special education services (remained classified in both kindergarten and third grade). Farther to the right, the unshaded columns report similar status data for third graders. Pie charts below the table report the column frequencies and percentages in three categories: from the first column, frequencies for the preschool special education settings of the original preschool cohort sample; students who continued to receive special education services in kindergarten; and students who received special education services in third grade.

¹ Although the preschool cohort was an intact sample from the beginning of the study, the comparison cohort was constructed grade by grade as the students progressed. Consequently, the size of the comparison cohort increased progressively at each grade level as new students were added by the districts each year—from 132 students in the kindergarten year to more than 2,800 students by third grade—allowing for an increasingly valid comparison sample by the final year of the study.

² PD-1/4 data were reported for 4,792 of the 5,598 students in the original preschool sample.

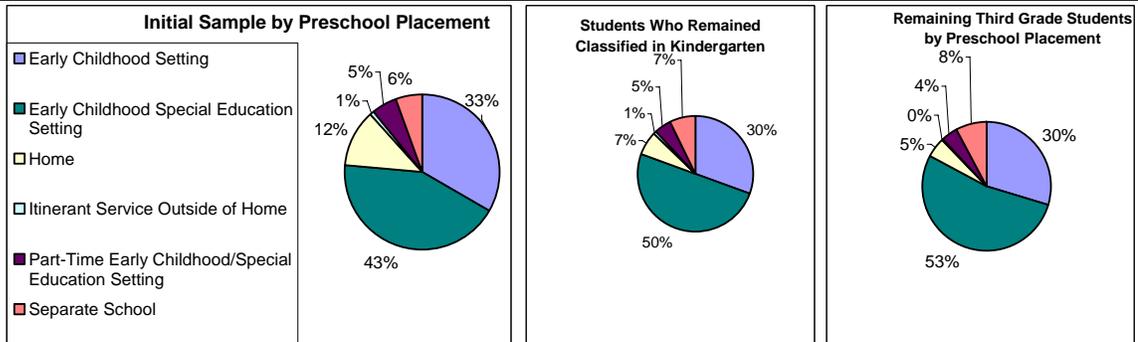
5.2.1 Student Placements in General Education, Kindergarten Through Third Grade, Comparing Preschool and Comparison Cohort Students by PD-1/4 Category

Exhibit 5-1 compares students in their transition from preschool special education to kindergarten and where they were by third grade. As shown:

- PD-1/4 data were provided for 4,792 students as they made the transition from preschool special education to kindergarten.
- Three hundred and forty-six students (7%) were lost to the study by kindergarten, either because they transferred out of the district or because districts were unable to provide data for them. By third grade, the number of lost students increased to 893 (19%).
- One thousand forty-one students (22%) for whom PD-1/4 data were reported were declassified as recipients of special education services prior to their entry into kindergarten and not reclassified during their kindergarten year. By third grade, the number of students who were declassified and not reclassified increased to 1,132 (24%).
- Declassification percentages from preschool through third grade rose moderately for three of six preschool special education categories (Early Childhood Setting +5%; Part-time Early Childhood/Part-time Special Education Setting +5%; Separate School +1%) and precipitously for the category containing students served in preschool Itinerant Services Outside of Home, where the change in percent declassified went from 20% at kindergarten to 51% by third grade. For the Early Childhood Special Education Setting category, the percentage of students declassified declined from 13% in kindergarten to 11% by third grade, suggesting that 2% of the preschool cohort students from this preschool category were reclassified by third grade.
- The percentage of students in the original sample who received preschool special education services in an Early Childhood Setting and in an Early Childhood Special Education Setting accounted for the majority of the preschool cohort (33% and 43%, respectively) and among those who remained classified as kindergartners, 30 percent and nearly 50 percent, respectively (see first pie chart below table).
- By the time preschool cohort students reached third grade, the share of students who received preschool special education services in an Early Childhood Setting and remained classified remained stable at 30 percent, and the share of students in Early Childhood Special Education Settings increased to 53 percent.

**EXHIBIT 5-1
COMPARISON OF STUDENT STATUS PRIOR TO ENTRY INTO KINDERGARTEN
AND INTO THIRD GRADE BY PD-1/4 CATEGORY**

| Where Children Received PK Special Education Services* | TOTAL | Students Who Moved or Whose Status Was Unknown/ Unreported by Kindergarten | | Declassified/Not Reclassified Upon Entry into Kindergarten | | Students Who Remained Classified in Kindergarten | | Students Who Moved or Whose Status Was Unknown/ Unreported by Third Grade | | Declassified/Not Reclassified upon Entry into Third Grade | | Students Who Remained Classified in Third Grade | |
|--|--------------|--|------------|--|------------|--|------------|---|------------|---|------------|---|------------|
| | | # | % of Total | # | % of Total | # | % of Total | # | % of Total | # | % of Total | # | % of Total |
| Early Childhood Setting | 1,594 | 144 | 9% | 412 | 26% | 1,038 | 65% | 266 | 17% | 502 | 31% | 826 | 52% |
| Early Childhood Special Education Setting | 2,068 | 104 | 5% | 259 | 13% | 1,705 | 82% | 369 | 18% | 231 | 11% | 1,468 | 71% |
| Home | 566 | 55 | 10% | 280 | 49% | 231 | 41% | 153 | 27% | 279 | 49% | 134 | 24% |
| Itinerant Service Outside of Home | 49 | 14 | 29% | 10 | 20% | 25 | 51% | 17 | 35% | 25 | 51% | 7 | 14% |
| Part-Time Early Childhood/Special Education Setting | 247 | 17 | 7% | 70 | 28% | 160 | 65% | 47 | 19% | 81 | 33% | 119 | 48% |
| Separate School | 268 | 12 | 4% | 10 | 4% | 246 | 92% | 41 | 15% | 14 | 5% | 213 | 79% |
| TOTAL | 4,792 | 346 | 7% | 1,041 | 22% | 3,405 | 71% | 893 | 19% | 1,132 | 24% | 2,767 | 58% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

Based on PD-1/4 Special Education Service Setting Nomenclature.

*PD-1/4 category (The "Residential Facility" preschool setting was excluded from all charts because no study participants were placed in such a setting).

Exhibits 5-2 through 5-5 track students in the preschool cohort (n = 4,792) by PD-1/4 category and the comparison cohort in terms of integration within the general education setting as they progressed from kindergarten through third grade. Levels of integration of placements are presented in four categories, from more integrated to less integrated as reflected by the percentage of time spent outside of the general education classroom setting by students in receipt of special education services: 0 to 20 percent (Highly Integrated Setting), 21 to 60 percent (Moderately Integrated Setting), 61 to 99 percent (Minimally Integrated Setting), and 100 percent (Separate Setting).

5.2.1.1 Kindergarten Special Education Student Placements in General Education

Exhibit 5-2 follows preschool special education students remaining classified as kindergartners (n= 3,405) and examines their levels of integration into the general

education classroom with nondisabled peers by PD-1/4 category. Also, with the addition of a small sample of kindergarten students, for the first time, it is possible to begin comparing elementary school-age placements of the comparison cohort (who received no preschool special education services) with those of the preschool cohort.

Exhibit 5-2 reports the extent to which preschool and comparison cohort students who received school-age special education services according to the four levels of integration: Highly Integrated Setting, Moderately Integrated Setting, Minimally Integrated Setting, and Separate Setting, supporting the following observations:

- Half of all kindergarten students (50%) who received preschool special education services and who remained classified upon entry into kindergarten fell in the Highly Integrated Setting category.
- Although by the kindergarten school year, only 132 students with disabilities who did not receive preschool special education services (the comparison group) had joined the study, students in this group tended to be allocated more frequently to less integrated environments than were kindergartners in the preschool cohort, as a group, generally mirroring the distribution of students who received preschool special education services in less integrated preschool settings.
- Among students who received preschool special education services in four of the more integrated preschool settings, two-thirds or more spent less than 21 percent of their time outside of the general education classroom in special education settings, whereas students who received special education services in two of the less integrated special education settings tended to spend more time in receipt of special education services in kindergarten outside of the general education classroom.
- For students who received preschool special education services, the table row reports the distribution of students from each preschool special education setting in relation to their representation for each level of integration in kindergarten. The pie charts examine for each level of integration in kindergarten, the preschool special education setting where students were previously served. We can thus see that in the Highly Integrated Setting column, 683 kindergarten students, or 41 percent of the 1,698 preschool cohort students in this category, previously received preschool special education services in Early Childhood Settings. Students who received preschool special education services in Early Childhood Special Education Settings accounted for 55 percent of all students in the preschool cohort in the Moderately Integrated category in kindergarten.

**EXHIBIT 5-2
LEVELS OF INTEGRATION IN KINDERGARTEN COMPARING PRESCHOOL
COHORT BY (PD-1/4 CATEGORY) AND COMPARISON COHORT STUDENTS**

| Where Children Received PK Special Education Services* | Where Students Received Special Education Services in Kindergarten | | | | | | | | |
|--|--|---|----------------|------------|----------------|-------------|----------------|------------------|----------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom | | | | | | Separate Setting | |
| | | 0-20% Out | % of Row Total | 21-60% Out | % of Row Total | 61-99% Out | % of Row Total | 100% Out | % of Row Total |
| Early Childhood Setting | 1038 | 683 | 66% | 54 | 5% | 214 | 21% | 87 | 8% |
| Early Childhood Special Education Setting | 1705 | 635 | 37% | 92 | 5% | 681 | 40% | 297 | 17% |
| Home | 231 | 183 | 79% | 14 | 6% | 15 | 6% | 19 | 8% |
| Itinerant Service Outside of Home | 25 | 21 | 84% | 1 | 4% | 2 | 8% | 1 | 4% |
| Part-Time Early Childhood/Special Education Setting | 160 | 105 | 66% | 1 | 1% | 43 | 27% | 11 | 7% |
| Separate School | 246 | 71 | 29% | 5 | 2% | 115 | 47% | 55 | 22% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 3,405 | 1,698 | 50% | 167 | 5% | 1070 | 31% | 470 | 14% |
| STUDENTS WHO RECEIVED NO PRESCHOOL SERVICES | 132 | 57 | 43% | 2 | 2% | 65 | 49% | 8 | 6% |

| | | | | |
|--|--|--|--|--|
| <ul style="list-style-type: none"> ■ Early Childhood Setting ■ Early Childhood Special Education Setting ■ Home ■ Itinerant Service Outside of Home ■ Part-Time Early Childhood/Special Education Setting ■ Separate School | | | | |
|--|--|--|--|--|

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-1/4 category (The "Residential Facility" preschool setting was excluded from all charts because no study participants were placed in such a setting.)

**Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

5.2.1.2 First Grade Special Education Student Placements in General Education

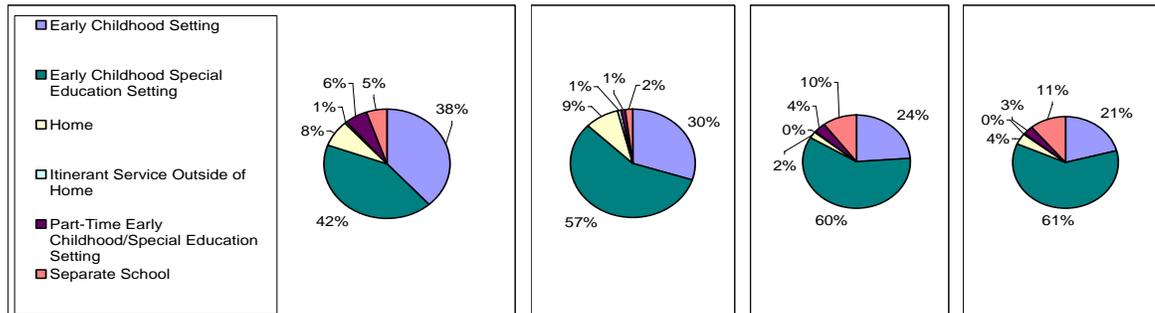
Exhibit 5-3 reports findings for preschool cohort first grade students according to the four levels of integration, and in the last row of the table, findings for comparison cohort students (n = 1,852) who received special education services in first grade but no special education services in preschool:

- By first grade, in relation to kindergarten findings, a pattern of shifting occurred among the preschool cohort. Students who received preschool special education services in four of the more integrated preschool settings moved by first grade to less integrated levels of service.

- Conversely, among students who had received special education services in less integrated preschool settings, by first grade there was the beginnings of a shift to more integrated settings; from Separate Settings to Minimally Integrated settings.
- Among the preschool cohort Moderately Integrated Settings accounted for less than 5 percent of all classified first graders.
- Among the comparison cohort, “no–preschool special education services,” which now includes 1,852 students; more than three-fifths were in Highly Integrated Settings. Students in this cohort were distributed across all four of the levels of integration very similarly to preschool cohort students previously served in Early Childhood Settings.
- As shown in the four pie charts directly below the levels of integration table, in the Highly Integrated Setting column, 680 first graders, or 41 percent of the 1,603 preschool cohort students in Highly Integrated Settings formerly received preschool special education services in an Early Childhood Special Education Setting. Preschool cohort students from Early Childhood Special Education Programs accounted for 57 percent of all first grade students in Moderately Integrated Settings and three-fifths of all first grade students in Minimally Integrated Settings, respectively.

**EXHIBIT 5-3
LEVELS OF INTEGRATION IN FIRST GRADE COMPARING PRESCHOOL COHORT
(BY PD-1/4 CATEGORY) AND COMPARISON COHORT STUDENTS**

| Where Children Received PK Special Education Services* | Where Students Received Special Education Services in First Grade | | | | | | | | |
|--|---|---|----------------|------------|----------------|--------------|----------------|------------------|----------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom | | | | | | Separate Setting | |
| | | 0-20% Out | % of Row Total | 21-60% Out | % of Row Total | 61-99% Out | % of Row Total | 100% Out | % of Row Total |
| Early Childhood Setting | 1007 | 613 | 61% | 47 | 5% | 297 | 29% | 50 | 5% |
| Early Childhood Special Education Setting | 1664 | 680 | 41% | 90 | 5% | 748 | 45% | 146 | 9% |
| Home | 176 | 124 | 70% | 14 | 8% | 29 | 16% | 9 | 5% |
| Itinerant Service Outside of Home | 13 | 10 | 77% | 1 | 8% | 1 | 8% | 1 | 8% |
| Part-Time Early Childhood/Special Education Setting | 149 | 93 | 62% | 2 | 1% | 47 | 32% | 7 | 5% |
| Separate School | 241 | 83 | 34% | 3 | 1% | 128 | 53% | 27 | 11% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 3,250 | 1,603 | 49% | 157 | 5% | 1,250 | 38% | 240 | 7% |
| STUDENTS WHO RECEIVED NO PRESCHOOL SERVICES | 1,852 | 1,157 | 62% | 147 | 8% | 493 | 27% | 55 | 3% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-1/4 category (The "Residential Facility" preschool setting was excluded from all charts because no study participants were placed in such a setting.)

**Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

5.2.1.3 Second Grade Special Education Student Placements in General Education

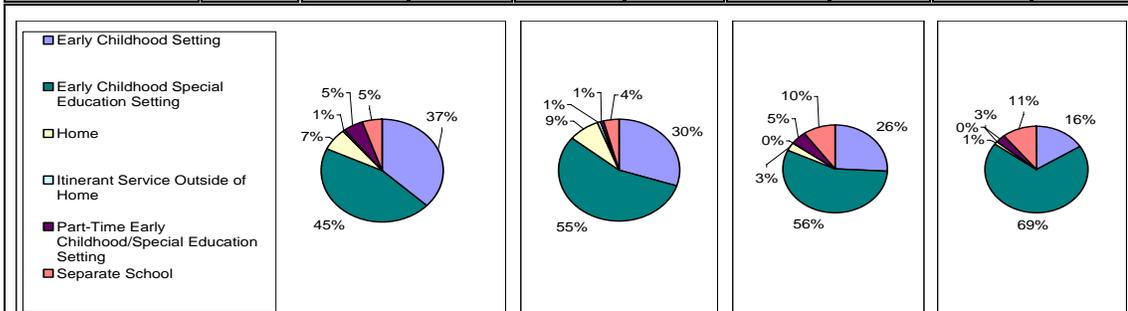
Exhibit 5-4 reports findings for preschool cohort second grade students according to the four levels of integration, and in the last row of the table, findings for comparison cohort students who received special education services in second grade but no special education services in preschool:

- By second grade, the shift had accelerated among preschool cohort students who received preschool special education services in four of the more integrated preschool special education service settings (Itinerant Services, Early Childhood, Home, and Part-Time Early Childhood Special Education), from more integrated to less integrated services (Highly Integrated Setting to Separate Setting) particularly among students who received special education services in Early Childhood Settings and at home.

- Among the comparison cohort, which included 1,955 classified second graders, a similar shift occurred but to a lesser degree.
- Among the preschool cohort, Moderately Integrated Settings and Separate Setting accounted for 5 percent and 6 percent, respectively, of all classified second graders, compared with 8 percent and 3 percent, respectively, among the comparison cohort.
- The four pie charts directly below the levels of integration table show that, by virtue of their higher representation in the preschool cohort, students who received preschool special education in an Early Childhood Setting or Early Childhood Special Education Setting continued to account for the highest numbers and percentages at each of the levels of integration.

**EXHIBIT 5-4
LEVELS OF INTEGRATION IN SECOND GRADE COMPARING PRESCHOOL
COHORT (BY PD-1/4 CATEGORY) AND COMPARISON COHORT STUDENTS**

| Where Children Received PK Special Education Services* | Where Students Received Special Education Services in Second Grade | | | | | | | | |
|--|--|---|----------------|------------|----------------|-------------|----------------|------------------|----------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom | | | | | | Separate Setting | |
| | | 0-20% Out | % of Row Total | 21-60% Out | % of Row Total | 61-99% Out | % of Row Total | 100% Out | % of Row Total |
| Early Childhood Setting | 921 | 479 | 52% | 42 | 5% | 370 | 40% | 30 | 3% |
| Early Childhood Special Education Setting | 1590 | 583 | 37% | 78 | 5% | 801 | 50% | 128 | 8% |
| Home | 145 | 87 | 60% | 12 | 8% | 44 | 30% | 2 | 1% |
| Itinerant Service Outside of Home | 9 | 7 | 78% | 1 | 11% | 1 | 11% | 0 | 0% |
| Part-Time Early Childhood/Special Education Setting | 147 | 69 | 47% | 1 | 1% | 71 | 48% | 6 | 4% |
| Separate School | 237 | 69 | 29% | 6 | 3% | 142 | 60% | 20 | 8% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 3,049 | 1,294 | 42% | 140 | 5% | 1429 | 47% | 186 | 6% |
| STUDENTS WHO RECEIVED NO PRESCHOOL SERVICES | 3,354 | 1,955 | 58% | 271 | 8% | 1042 | 31% | 86 | 3% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-1/4 category (The "Residential Facility" preschool setting was excluded from all charts because no study participants were placed in such a setting.)

**Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

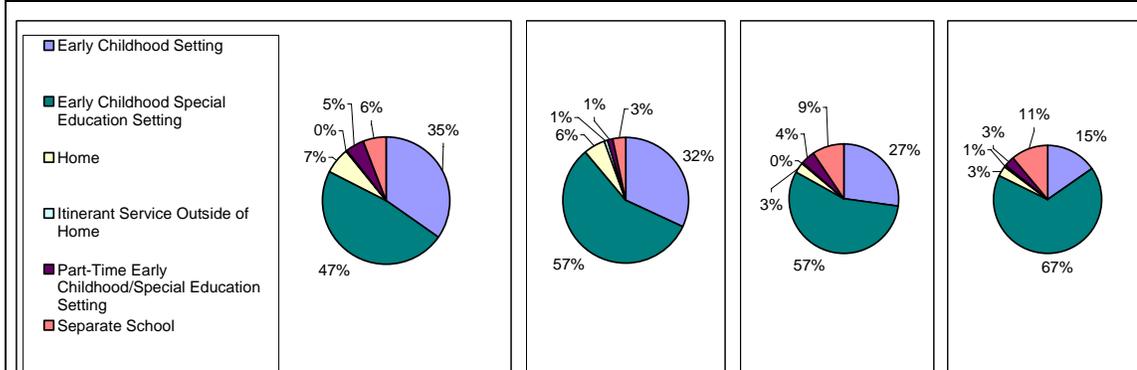
5.2.1.4 Third Grade Special Education Student Placements in General Education

Exhibit 5-5 reports findings for preschool cohort third grade students according to the four levels of integration, and in the last row of the table, findings for comparison cohort students who received special education services in third grade but no special education services in preschool:

- By third grade, the shift had accelerated among the preschool cohort who received preschool special education services in four of the more integrated preschool special education settings (Itinerant Services, Early Childhood, Home and Part-Time Early Childhood Special Education), from more integrated to less integrated services (e.g., Highly Integrated Settings to Minimally Integrated Settings), particularly among students who received special education services in Early Childhood Settings and at home. The opposite dynamic occurred among the comparison cohort.
- Moderately Integrated Settings and Separate Settings accounted for 5 percent and 6 percent, respectively, of preschool cohort students who remained classified in third grade compared with 7 percent and 3 percent, respectively, among the comparison cohort.
- The four pie charts directly below the levels of integration table, show that, by virtue of their higher representation in the preschool cohort, students who received preschool special education in Early Childhood Special Education Settings and Early Childhood Settings continued to account for the highest numbers and percentages at each of the levels of integration in third grade.

**EXHIBIT 5-5
LEVELS OF INTEGRATION IN THIRD GRADE COMPARING PRESCHOOL COHORT
(BY PD-1/4 CATEGORY) AND COMPARISON COHORT STUDENTS**

| Where Children Received PK Special Education Services* | Where Students Received Special Education Services in Third Grade | | | | | | | | |
|--|---|---|----------------|------------|----------------|-------------|----------------|------------------|----------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom | | | | | | Separate Setting | |
| | | 0-20% Out | % of Row Total | 21-60% Out | % of Row Total | 61-99% Out | % of Row Total | 100% Out | % of Row Total |
| Early Childhood Setting | 825 | 389 | 47% | 46 | 6% | 365 | 44% | 25 | 3% |
| Early Childhood Special Education Setting | 1467 | 532 | 36% | 82 | 6% | 744 | 51% | 109 | 7% |
| Home | 132 | 75 | 57% | 8 | 6% | 44 | 33% | 5 | 4% |
| Itinerant Service Outside of Home | 7 | 4 | 57% | 1 | 14% | 1 | 14% | 1 | 14% |
| Part-Time Early Childhood/Special Education Setting | 117 | 52 | 44% | 2 | 2% | 58 | 50% | 5 | 4% |
| Separate School | 213 | 65 | 31% | 5 | 2% | 125 | 59% | 18 | 8% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 2,761 | 1,117 | 40% | 144 | 5% | 1337 | 48% | 163 | 6% |
| STUDENTS WHO RECEIVED NO PRESCHOOL SERVICES | 4,792 | 2,801 | 58% | 353 | 7% | 1498 | 31% | 140 | 3% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-1/4 category (The “Residential Facility” preschool setting was excluded from all charts because no study participants were placed in such a setting.)

**Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the “Time Spent Outside of the General Education Classroom” column categories are referred to as follows: “0-20% Out” - “Highly Integrated Setting;” “21-60% Out” - “Moderately Integrated Setting” - “61-99% Out” - Minimally Integrated Setting;” and, “100% Out” - “Separate Setting.”

5.2.1.5 Summary of Classification Patterns by PD-1/4 Category

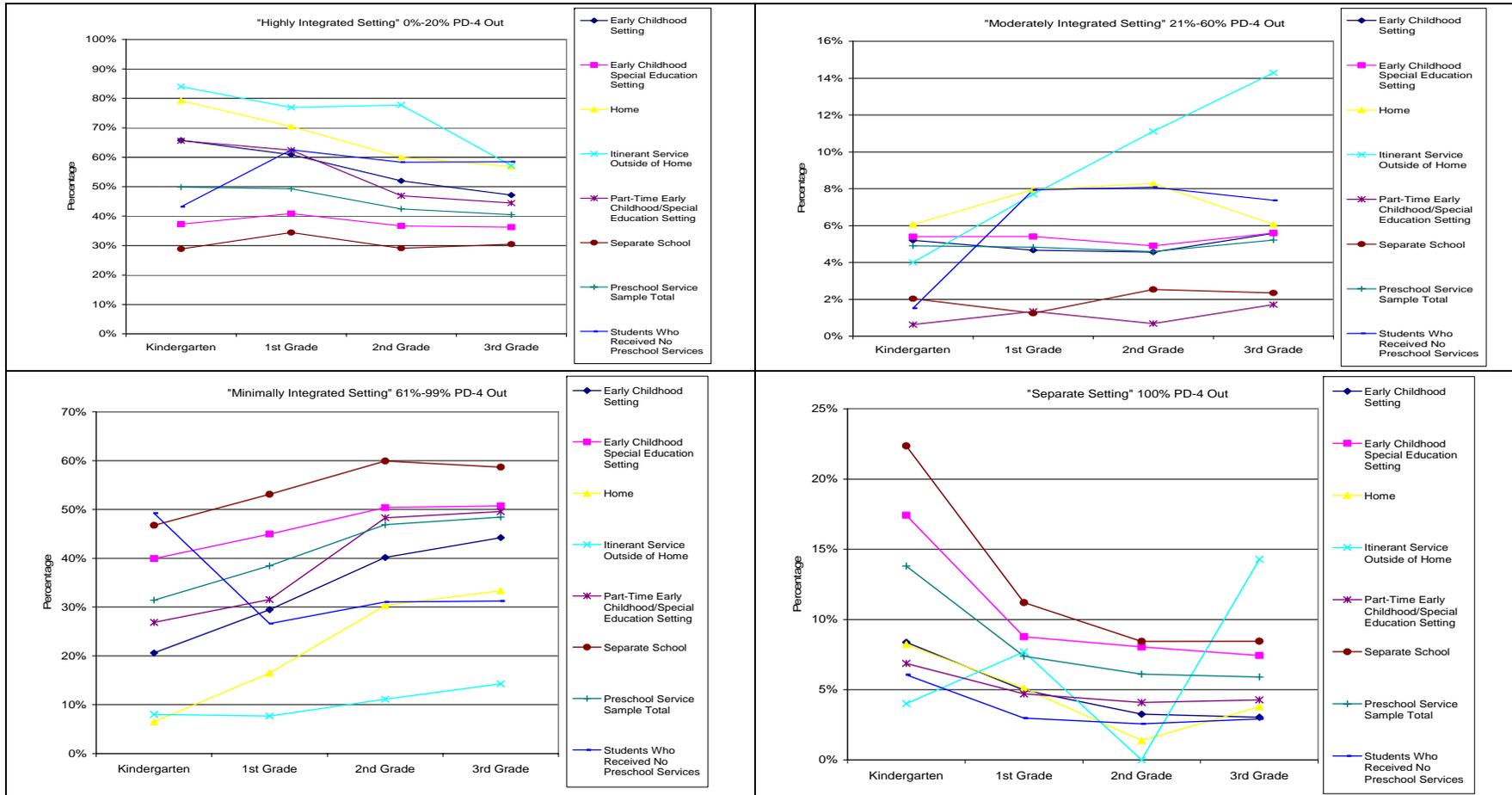
To summarize grade-level findings for kindergarten through third grade:

- From kindergarten through third grade representation of the preschool cohort in integrated settings decreased from 50 to 40 percent in Highly Integrated Settings and increased from 31 to 48 percent in Minimally Integrated Settings, whereas for the comparison cohort (who received no preschool special education services), representation increased from 43 to 58 percent in Highly Integrated Settings and decreased from 49 to 31 percent in Minimally Integrated Settings.

- As preschool cohort students who remained classified moved through the grades to third grade, there was a large shift of students who had received preschool special education services in more integrated preschool special education settings from Highly Integrated Settings in kindergarten to Minimally Integrated Settings in third grade. Students who had received preschool special education services in a less integrated environment shifted from Separate Settings in kindergarten to Minimally Integrated Settings in third grade.
- From kindergarten through third grade, representation by the preschool cohort in Separate Settings decreased from 14 to 6 percent, and representation by the comparison cohort in Separate Settings decreased from 6 to 3 percent.
- Among the preschool special education cohort, the largest shift by percentage from kindergarten through third grade from one level of integration to another occurred among students who had participated in preschool special education services offered in Part-Time Early Childhood/Special Education Settings. 66 percent of these students were in Highly Integrated Settings in kindergarten compared with 43 percent in third grade, representing a 23 percent shift to Minimally Integrated Settings.
- There was a similar shift among students who had received preschool special education services in Early Childhood Settings and at home.

Finally, **Exhibit 5-6** provides a different view of table data reported in **Exhibits 5-2** through **5-5** by presenting data, grade by grade, in each of the four levels of integration as line graphs. In the first line graph, presenting kindergarten through third grade trends for services provided in Highly Integrated Settings, the consistent downward slope of grade-by-grade lines for each PD-1/4 category and for the comparison cohort chronicles the gradual shift of students in both cohorts to less integrated classroom settings as they progressed through the grades. In the preschool special education services cohort, however, percentages of students in Highly Integrated Settings tended to hold steady for both students who received preschool special education services in Early Childhood Special Education Settings and those who received special education services in a Separate School setting. Conversely, in the next two line graphs, which present grade trends in Moderately Integrated Settings and Minimally Integrated Settings, we see in most categories a general upward slope, more pronounced for some PD-1/4 categories than others, confirming the attrition of students from Highly Integrated Settings. However, in the Separate Settings graph, for most categories of students who received special education services in preschool we see the opposite trend—a downward slope from kindergarten through third grade, with a particularly steep decline in percentages of students placed in this setting occurring from kindergarten to first grade.

EXHIBIT 5-6
FOUR CATEGORIES OF LEVELS OF INTEGRATION COMPARING PRESCHOOL COHORT (BY PD-1/4 CATEGORY) AND
COMPARISON COHORT STUDENTS: KINDERGARTEN THROUGH THIRD GRADE



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.
 *PD-1/4 category (The "Residential Facility" preschool setting was excluded from all charts because no study participants were placed in such a setting.)

5.2.2 Student Placements in the General Education Setting, Kindergarten Through Third Grade, Comparing Preschool Cohort (by PD-7 Category) and Comparison Cohort Students

In **Exhibit 5-1** in the previous section, we looked at what happened to students who received preschool special education services in various preschool special education settings based on the PD-1/4 report, comparing status at kindergarten and third grade and noting students who were no longer in the study as a result of moving out of participating school districts or for whom district information was unavailable, as well as students who were declassified as recipients of special education services in kindergarten and third grade and not reclassified. The following section employs the same format, but looks at the students in the preschool cohort in terms of their preschool special education programs and services, using the PD-7 categories and comparing their levels of integration placement percentages and frequencies with those of students in the comparison cohort.

Exhibit 5-7 examines the preschool cohort by PD-7 category, comparing students in their transition from preschool special education to kindergarten and where they were by third grade. Of the original sample:

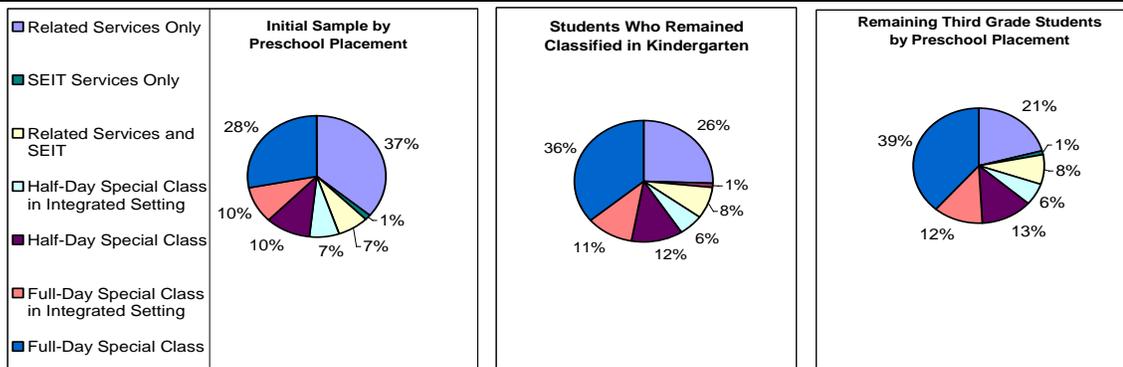
- PD-7 data were provided for 5,239 students as they made the transition from preschool special education to kindergarten.
- Three hundred and ninety students (7%) were lost to the study by kindergarten either because they transferred out of the district or because districts were unable to provide data for them. By third grade, the number of students lost increased to 956 (18%).
- When compared to the overall percentage of students in the study who were placed in PD-7 categories, the percentage of students who were declassified and not reclassified rose slightly by the time the preschool cohort reached third grade (from 22% to 25%).
- Declassifications among the preschool cohort from kindergarten through third grade decreased in five of the seven PD-7 categories, suggesting that students previously declassified in these categories were reclassified at some point between kindergarten and third grade.
- Preschool cohort students in the Related Services Only category were declassified at a much higher rate than others between kindergarten and third grade (from 39% to 50%).
- Only 132 students who did not receive preschool special education services (the comparison cohort) had joined the study by the kindergarten year. Students in this cohort tended to be allocated more frequently to less integrated environments than were kindergartners in the preschool cohort generally mirroring the distribution of students who received preschool special education services in less integrated preschool settings.

Kindergarten Through Third Grade Experiences and Outcomes

- The first pie chart below the table reports the percentage of students in the original preschool sample by their PD-7 category (first column in the table), indicating that students who received preschool Related Services Only and Full-Day Special Class services accounted for the majority of the sample (37% and 28%, respectively).
- The second pie chart shows that, among those who remained classified as kindergartners, students in the Related Services Only and the Full Day Special Class categories accounted for 26 percent and 36 percent of all classified students.
- By third grade (third pie chart), students in these two categories accounted for a respective 21 percent and 39 percent of those who remained classified.

**EXHIBIT 5-7
COMPARISON OF STUDENT STATUS PRIOR TO ENTRY INTO KINDERGARTEN
AND INTO THIRD GRADE BY PD-7 CATEGORY**

| Childrens' Preschool Special Education Services Program/Placement* | TOTAL | Students Who Moved or Whose Status Was Unknown/ Unreported by Kindergarten | | Declassified/ Not Reclassified Upon Entry into Kindergarten | | Students Who Remained Classified in Kindergarten | | Students Who Moved or Whose Status Was Unknown/ Unreported by Third Grade | | Declassified/ Not Reclassified upon Entry into Third Grade | | Students Who Remained Classified in Third Grade | |
|--|--------------|--|------------|---|------------|--|------------|---|------------|--|------------|---|------------|
| | | # | % of Total | # | % of Total | # | % of Total | # | % of Total | # | % of Total | # | % of Total |
| | | Related Services Only | 1899 | 212 | 11% | 747 | 39% | 940 | 49% | 344 | 18% | 943 | 50% |
| SEIT Services Only | 65 | 6 | 9% | 23 | 35% | 36 | 55% | 14 | 22% | 19 | 29% | 32 | 49% |
| Related Services and SEIT | 386 | 24 | 6% | 51 | 13% | 311 | 81% | 104 | 27% | 36 | 9% | 246 | 64% |
| Half-Day Special Class in Integrated Setting | 359 | 34 | 9% | 113 | 31% | 212 | 59% | 72 | 20% | 106 | 30% | 181 | 50% |
| Half-Day Special Class | 545 | 35 | 6% | 68 | 12% | 442 | 81% | 89 | 16% | 74 | 14% | 382 | 70% |
| Full-Day Special Class in Integrated Setting | 520 | 25 | 5% | 92 | 18% | 403 | 78% | 89 | 17% | 73 | 14% | 358 | 69% |
| Full-Day Special Class | 1465 | 54 | 4% | 82 | 6% | 1,329 | 91% | 254 | 17% | 75 | 5% | 1,136 | 78% |
| TOTAL | 5,239 | 390 | 7% | 1,176 | 22% | 3,673 | 70% | 966 | 18% | 1,326 | 25% | 2,947 | 56% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006. *PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

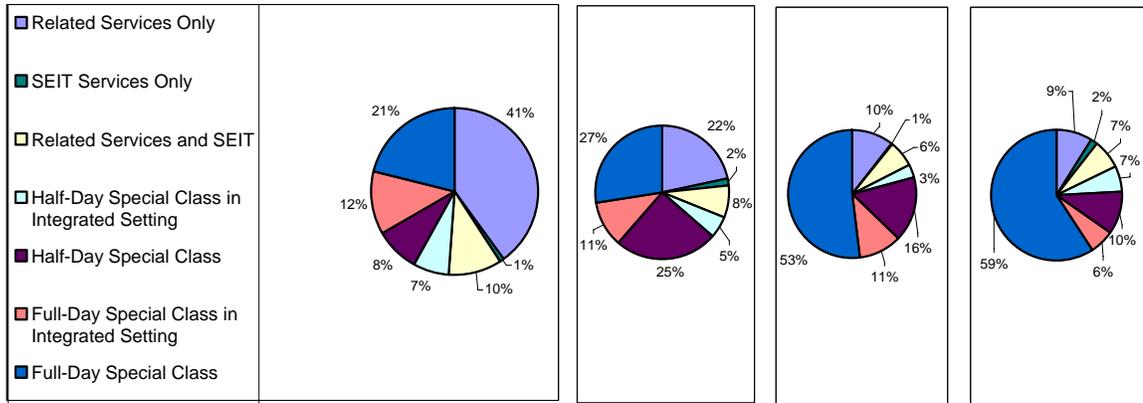
5.2.2.1 Kindergarten Special Education Student Placements in General Education

Exhibit 5-8 reports findings for preschool cohort kindergarten students according to the four levels of integration, and in the last row of the table, findings for the comparison cohort (n = 132), who received special education services in kindergarten but no special education services in preschool:

- Among preschool cohort students, half (50%) who remained classified upon entry into kindergarten were placed in Highly Integrated Settings, while nearly one-third (31%) received kindergarten services in Minimally Integrated Settings—compared with 43 percent and 49 percent in these two categories, respectively, in the relatively small comparison cohort (n = 132) who received special education services during the kindergarten school year.
- Among students who received preschool special education services in five of the more integrated preschool special education settings, from half to more than three-quarters spent less than 21 percent of their time outside of the general education classroom in special education settings, whereas students who received special education services in two of the less integrated special education settings tended to spend more time in receipt of special education services outside of the general education classroom.
- As shown in the four pie charts directly below the levels of integration table, students who received preschool Related Services Only and Full-Day Special Class services accounted for 41 percent and 21 percent, respectively, of the kindergartners placed in Highly Integrated Settings. Students who received preschool special education services in the Half-Day Special Class and the Full-Day Special Class settings accounted for 25 percent and 27 percent, respectively, of the kindergartners placed in the Moderately Integrated Settings. Students who received preschool special education services in the Full-Day Special Class setting accounted for 53 percent of students in Minimally Integrated Settings and 59 percent of students in Separate Settings.

**EXHIBIT 5-8
LEVELS OF INTEGRATION IN KINDERGARTEN COMPARING PRESCHOOL
COHORT (BY PD-7 CATEGORY) AND COMPARISON COHORT STUDENTS**

| Childrens' Preschool Special Education Services Program/Placement* | Level of Integration in Kindergarten | | | | | | | | |
|--|--------------------------------------|---|------------|------------|------------|-------------|------------|------------------|------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom | | | | | | Separate Setting | |
| | | 0-20% Out | % of Total | 21-60% Out | % of Total | 61-99% Out | % of Total | 100% Out | % of Total |
| Related Services Only | 940 | 735 | 78% | 41 | 4% | 120 | 13% | 44 | 5% |
| SEIT Services Only | 36 | 19 | 53% | 3 | 8% | 6 | 17% | 8 | 22% |
| Related Services and SEIT | 311 | 187 | 60% | 15 | 5% | 74 | 24% | 35 | 11% |
| Half-Day Special Class in Integrated Setting | 212 | 130 | 61% | 10 | 5% | 40 | 19% | 32 | 15% |
| Half-Day Special Class | 442 | 155 | 35% | 47 | 11% | 189 | 43% | 51 | 12% |
| Full-Day Special Class in Integrated Setting | 403 | 225 | 56% | 21 | 5% | 126 | 31% | 31 | 8% |
| Full-Day Special Class | 1,329 | 390 | 29% | 52 | 4% | 597 | 45% | 290 | 22% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 3,673 | 1,841 | 50% | 189 | 5% | 1152 | 31% | 491 | 13% |
| STUDENTS WHO RECEIVED NO PRESCHOOL SERVICES | 132 | 57 | 43% | 2 | 2% | 65 | 49% | 8 | 6% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.
*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

**Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

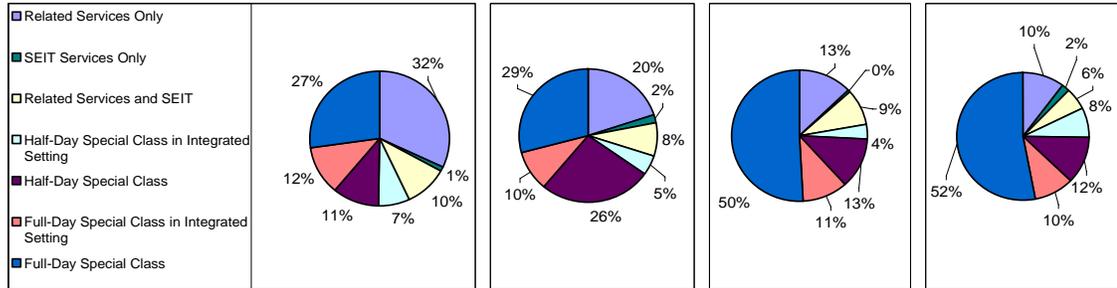
5.2.2.2 First Grade Special Education Student Placements in General Education

Exhibit 5-9 reports findings for preschool cohort first grade students according to the four levels of integration, and in the last row of the table, findings for the comparison cohort (n = 1,852), who received special education services in first grade but no special education services in preschool:

- In first grade, in relation to kindergarten findings, preschool cohort representation in Highly Integrated Settings increased slightly. There was a general shift from less integrated service environments in kindergarten to more integrated service environments in first grade—a pattern shared by comparison cohort first graders.
- Among the preschool cohort, as in kindergarten, Moderately Integrated Settings accounted for 4 percent of all classified first graders, but among the comparison cohort, this percentage rose from 2 percent in kindergarten to 8 percent in first grade.
- Preschool cohort students who received services in a Full-Day Special Class Program showed a decrease from kindergarten to first grade in the Separate Setting category, from 22 to 10 percent.
- As shown in the four pie charts directly below the levels of integration table, students who received preschool Related Services Only and Full-Day Special Class Program accounted for 32 percent and 27 percent, respectively, of the first grade students in Highly Integrated Settings. Students who received preschool special education services in Half-Day Special Class and Full-Day Special Class settings accounted for 26 percent and 29 percent, respectively, of those first graders in Moderately Integrated Settings. Students who received preschool special education services in Full-Day Special Class accounted for 50 percent of students in Minimally Integrated Settings and 52 percent of students in Separate Settings in first grade.

**EXHIBIT 5-9
LEVELS OF INTEGRATION IN FIRST GRADE COMPARING PRESCHOOL COHORT
(BY PD-7 CATEGORY) AND COMPARISON COHORT STUDENTS**

| Childrens' Preschool Special Education Services Program/Placement* | Level of Integration in First Grade | | | | | | | | |
|--|-------------------------------------|---|------------|------------|------------|------------|------------|------------------|------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom (First Grade) | | | | | | Separate Setting | |
| | | 0-20% Out | % of Total | 21-60% Out | % of Total | 61-99% Out | % of Total | 100% Out | % of Total |
| Related Services Only | 774 | 543 | 70% | 33 | 4% | 172 | 22% | 26 | 3% |
| SEIT Services Only | 34 | 22 | 65% | 3 | 9% | 4 | 12% | 5 | 15% |
| Related Services and SEIT | 318 | 171 | 54% | 13 | 4% | 120 | 38% | 14 | 4% |
| Half-Day Special Class in Integrated Setting | 197 | 123 | 62% | 8 | 4% | 47 | 24% | 19 | 10% |
| Half-Day Special Class | 425 | 184 | 43% | 43 | 10% | 168 | 40% | 30 | 7% |
| Full-Day Special Class in Integrated Setting | 387 | 200 | 52% | 16 | 4% | 146 | 38% | 25 | 6% |
| Full-Day Special Class | 1,321 | 463 | 35% | 48 | 4% | 676 | 51% | 134 | 10% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 3,456 | 1,706 | 49% | 164 | 5% | 1333 | 39% | 253 | 7% |
| STUDENTS WHO RECEIVED NO PRESCHOOL SERVICES | 1,852 | 1,157 | 62% | 147 | 8% | 493 | 27% | 55 | 3% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

**Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

5.2.2.3 Second Grade Special Education Student Placements in General Education

Exhibit 5-10 reports findings for preschool cohort second grade students according to the four levels of integration, and in the last row of the table, findings for the comparison cohort (n = 3,354), who received special education services in second grade but no special education services in preschool. As shown:

- By second grade, in both the preschool and comparison cohorts, the same general shift from Highly Integrated Settings observed among the PD-1/4 categories began to occur, again mostly to Minimally Integrated Settings.
- Among the preschool cohort, Moderately Integrated Settings accounted for 5 percent of all classified second graders, but among the comparison cohort, this category remained at its first grade percentage of 8 percent.

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- As shown in the four pie charts directly below the levels of integration table, students who received preschool Related Services Only and Full-Day Special Class Program accounted for 29 percent and 32 percent, respectively, of second grade students in Highly Integrated Settings.
- Students who received preschool special education services in Half-Day Special Class and Full-Day Special Class accounted for 21 percent and 31 percent, respectively, of those second graders in Moderately Integrated Settings.
- Students who had received preschool special education services in Full-Day Special Class accounted for more than two-fifths (43%) of students in Minimally Integrated Settings and 58 percent of Separate Settings in second grade.

**EXHIBIT 5-10
LEVELS OF INTEGRATION IN SECOND GRADE COMPARING PRESCHOOL COHORT STUDENTS (BY PD-7 CATEGORY) AND COMPARISON COHORT STUDENTS**

| Childrens' Preschool Special Education Services Program/Placement* | Level of Integration in Second Grade | | | | | | | | |
|--|--------------------------------------|--|------------|------------|------------|-------------|------------|------------------|------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom (Second Grade) | | | | | | Separate Setting | |
| | | 0-20% Out | % of Total | 21-60% Out | % of Total | 61-99% Out | % of Total | 100% Out | % of Total |
| Related Services Only | 697 | 408 | 59% | 27 | 4% | 251 | 36% | 11 | 2% |
| SEIT Services Only | 31 | 19 | 61% | 1 | 3% | 8 | 26% | 3 | 10% |
| Related Services and SEIT | 278 | 132 | 47% | 11 | 4% | 131 | 47% | 4 | 1% |
| Half-Day Special Class in Integrated Setting | 201 | 103 | 51% | 11 | 5% | 74 | 37% | 13 | 6% |
| Half-Day Special Class | 400 | 137 | 34% | 32 | 8% | 205 | 51% | 26 | 7% |
| Full-Day Special Class in Integrated Setting | 385 | 156 | 41% | 17 | 4% | 188 | 49% | 24 | 6% |
| Full-Day Special Class | 1,255 | 429 | 34% | 46 | 4% | 664 | 53% | 116 | 9% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 3,247 | 1,384 | 43% | 145 | 4% | 1521 | 47% | 197 | 6% |
| STUDENTS WHO RECEIVED NO PRESCHOOL SERVICES | 3,354 | 1,955 | 58% | 271 | 8% | 1042 | 31% | 86 | 3% |

| | | | | |
|--|--|--|--|--|
| <ul style="list-style-type: none"> ■ Related Services Only ■ SEIT Services Only ■ Related Services and SEIT ■ Half-Day Special Class in Integrated Setting ■ Half-Day Special Class ■ Full-Day Special Class in Integrated Setting ■ Full-Day Special Class | | | | |
|--|--|--|--|--|

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

**Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

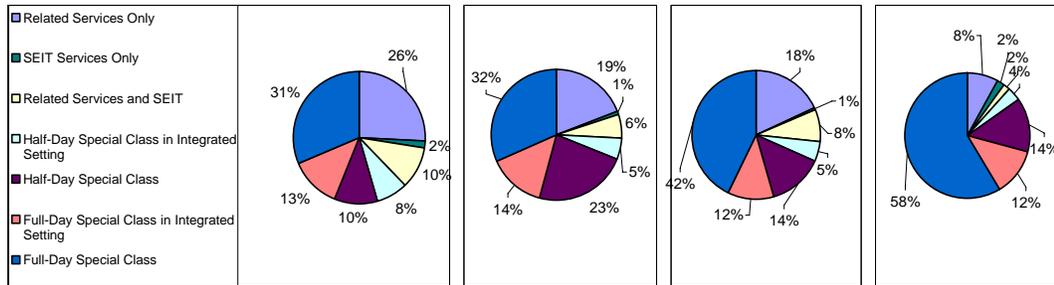
5.2.2.4 Third Grade Special Education Student Placements in General Education

Exhibit 5-11 reports findings for preschool cohort third grade students according to the four levels of integration, and in the last row of the table, findings for the comparison cohort (n = 4,792), who received special education services in third grade but no special education services in preschool:

- By third grade, in both the preschool and comparison cohorts, second grade patterns in all categories tended to hold steady, with the exception of Related Services Only which showed an increased shift from Highly Integrated Settings to Minimally Integrated Settings.
- Second grade patterns among both the preschool and comparison cohorts in Moderately Integrated Settings also remained relatively constant for classified third graders at 5 percent and 7 percent, respectively.
- Second grade patterns also held in Minimally Integrated Settings for classified third graders in both cohorts, with the exception of Related Services Only, as noted above.
- As shown in the four pie charts directly below the levels of integration table, students who received preschool Related Services Only and Full-Day Special Class Programs accounted for 26 percent and 31 percent, respectively, of third grade students in Highly Integrated Settings.
- Students who received preschool special education services in the Half-Day Special Class and the Full-Day Special Class accounted for 23 percent and 32 percent, respectively, of those third graders in Moderately Integrated Settings.
- Students who had received preschool special education in Full-Day Special Class Programs accounted for more than two-fifths (42%) of Minimally Integrated Settings and 58 percent of Separate Settings in third grade.

**EXHIBIT 5-11
LEVELS OF INTEGRATION IN THIRD GRADE COMPARING PRESCHOOL COHORT
(BY PD-7 CATEGORY) AND COMPARISON COHORT STUDENTS**

| Childrens' Preschool Special Education Services Program/Placement* | Level of Integration in Third Grade | | | | | | | | |
|--|-------------------------------------|---|------------|------------|------------|------------|------------|------------------|------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom (Third Grade) | | | | | | Separate Setting | |
| | | 0-20% Out | % of Total | 21-60% Out | % of Total | 61-99% Out | % of Total | 100% Out | % of Total |
| Related Services Only | 612 | 310 | 51% | 29 | 5% | 259 | 42% | 14 | 2% |
| SEIT Services Only | 32 | 19 | 59% | 1 | 3% | 9 | 28% | 3 | 9% |
| Related Services and SEIT | 246 | 121 | 49% | 9 | 4% | 113 | 46% | 3 | 1% |
| Half-Day Special Class in Integrated Setting | 181 | 95 | 52% | 8 | 4% | 72 | 40% | 6 | 3% |
| Half-Day Special Class | 382 | 124 | 32% | 35 | 9% | 199 | 52% | 24 | 6% |
| Full-Day Special Class in Integrated Setting | 358 | 151 | 42% | 21 | 6% | 165 | 46% | 21 | 6% |
| Full-Day Special Class | 1,136 | 374 | 33% | 48 | 4% | 614 | 54% | 100 | 9% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 2,947 | 1,194 | 41% | 151 | 5% | 1,431 | 49% | 171 | 6% |
| STUDENTS WHO RECEIVED NO PRESCHOOL SERVICES | 4,792 | 2,801 | 58% | 353 | 7% | 1,498 | 31% | 140 | 3% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

**Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

5.2.2.5 Summary of Classification Patterns by PD-7 Category

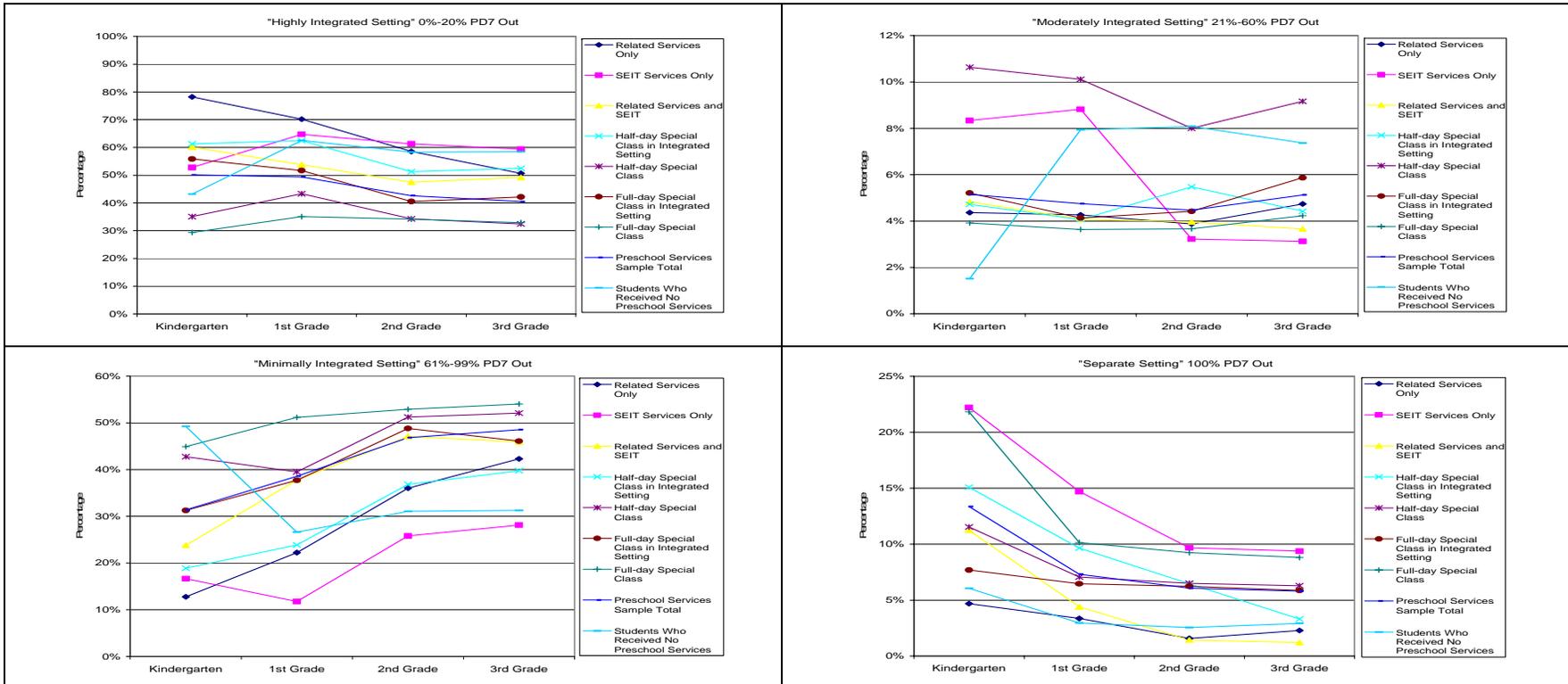
To summarize grade-level findings for kindergarten through third grade:

- As students who remained classified moved through school to third grade, there was a large shift of students who had received preschool special education services in the more integrated settings from Highly Integrated Settings to Minimally Integrated Settings, and for students who had received preschool special education services in a less integrated settings, from Separate Settings to Minimally Integrated Settings.
- Representation of the preschool cohort decreased from 50 to 41 percent in Highly Integrated Settings and increased from 31 to 49 percent in Minimally Integrated Settings, whereas for the comparison cohort, representation increased from 43 to 58 percent in Highly Integrated Settings and decreased from 49 to 31 percent in Minimally Integrated Settings.

- From kindergarten through third grade, in Full-Day Special Class Programs, representation of students in Separate Settings decreased from 22 to 9 percent.
- Among the preschool special education programs and services, the largest shift by percentage from one level of integration to another occurred among students who had participated in preschool Related Services Only, 78 percent of whom were served in Highly Integrated Settings in kindergarten compared with 51 percent in third grade, representing a 27 percent shift to Minimally Integrated Settings.
- There was a similar shift for students who received preschool special education services in Early Childhood Settings and at home.

Finally, **Exhibit 5-12** provides a different view of table data reported in **Exhibits 5-8** through **5-11** by presenting levels of integration data, grade by grade, in each of the four levels of integration as line graphs. In the first line graph, presenting kindergarten through third grade classification trends in Highly Integrated Settings, the consistent downward slope of grade-by-grade lines for many of the preschool special education programs and services and a slight downward slope for the comparison cohort (especially first through third grades) chronicles the gradual shift of students in both cohorts to less integrated classroom settings as they progressed through the grades. In the preschool cohort, however, post-kindergarten percentages of students in this category tended to hold steady for students in all preschool special education programs and services but Related Services Only, which experienced a more precipitous decline. In the next line graph, which presents grade trends in Moderately Integrated Settings, we see in most preschool special education programs and services a more gradual upward slope for some services than others, becoming more pronounced for all preschool special education programs and services in Minimally Integrated Settings—accounting, in part, for the attrition of students from Highly Integrated Settings. However, in the Separate Setting graph, for preschool cohort students in all preschool special education programs and services and for the comparison cohort, we see a steep downward slope from kindergarten through third grade, with a particularly steep decline in percentages of students placed in Separate Settings occurring from kindergarten to first grade.

EXHIBIT 5-12
FOUR CATEGORIES OF THE LEVELS OF INTEGRATION COMPARING PRESCHOOL COHORT (PD-7 CATEGORY) AND
COMPARISON COHORT STUDENTS: KINDERGARTEN THROUGH THIRD GRADE



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

5.2.3 Student Placements in General Education by N/RC Category, Kindergarten Through Third Grade, Comparing Preschool and Comparison Cohorts

Exhibits 5-13 through **5-17** examine the distribution of preschool and comparison cohort students by grade and six N/RC categories—New York City, the Large Four Cities (Yonkers, Buffalo, Syracuse and Rochester), Urban-Suburban High Need, Rural High Need, Average Need, and Low Need—in relation to the four categories of their school-age placements in the general education setting with nondisabled peers. In the columns of each exhibit, these are represented as the Levels of Integration. Exhibits are presented by grade, beginning with kindergarten. As in the case of preschool cohort kindergartners reported by preschool special education service setting (PD-1/4) in the previous section, because the kindergarten year was the first year comparison cohort students were added to the study, their numbers were insufficient to present a meaningful comparison with their preschool cohort kindergartners. Consequently, **Exhibit 5-13** reports findings only for preschool cohort students by N/RC. In **Exhibit 5-14**, which reports first grade findings, comparison cohort sample numbers are sufficient to permit some trend comparisons with preschool cohort peers.

5.2.3.1 Levels of Integration in Kindergarten of Preschool Cohort Students, by N/RC Category

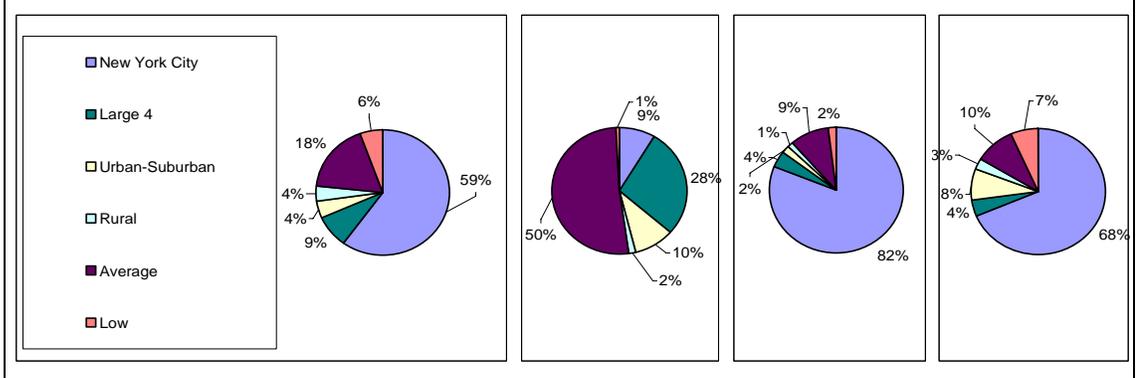
Exhibit 5-13 presents kindergarten general education placements for preschool cohort students by N/RC category, yielding the following observations:

- For the entire preschool cohort kindergarten sample, slightly less than half of all students were in Highly Integrated Settings, and roughly one-third of the sample was in Minimally Integrated Settings.
- Preschool cohort students from New York City and from Urban-Suburban High Need districts tended to spend significantly more time outside of the general education setting than students from other N/RC districts. From three-fifths to two-thirds of preschool cohort students in the Large Four Cities, Rural High Need, Average Need, and Low Need districts spent between 0 and 20 percent of their time outside of the kindergarten general education classroom in receipt of special education services (Highly Integrated Setting), compared with approximately half of their peers in New York City and Urban-Suburban High Need districts.
- Conversely, students in New York City were placed in Minimally Integrated Settings at more than twice the rate of students in the other needs districts.
- Thirteen percent of kindergarten students for whom N/RC data were provided received 100 percent of their special education services outside of the general education classroom setting, including one-quarter and one-fifth of students in the Urban-Suburban High Need districts and Low Need districts, respectively.

- Overall, 4 percent of preschool cohort kindergarten students were in Moderately Integrated Settings.
- As shown in the pie charts below the tables, students from New York City accounted for the majority of students in three of the four levels of integration. Students from the Average Need districts comprised half of Moderately Integrated Settings and, in comparison to the other need districts, tended to be allocated to the less integrated placement categories, accounting for 82% and 68%, respectively, of Minimally Integrated Settings and Separate Settings.

**EXHIBIT 5-13
LEVELS OF INTEGRATION IN KINDERGARTEN FOR PRESCHOOL COHORT
STUDENTS BY N/RC CATEGORY**

| Need/Resource Capacity Category | Where Preschool Students Received Special Education Services in Kindergarten | | | | | | | | |
|---------------------------------------|--|---|----------------|------------|----------------|--------------|----------------|------------------|----------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom | | | | | | Separate Setting | |
| | | 0-20% Out | % of Row Total | 21-60% Out | % of Row Total | 61-99% Out | % of Row Total | 100% Out | % of Row Total |
| New York City | 2,092 | 934 | 45% | 10 | 0% | 861 | 41% | 287 | 14% |
| Large 4 | 227 | 133 | 59% | 32 | 14% | 45 | 20% | 17 | 7% |
| Urban-Suburban | 135 | 70 | 52% | 11 | 8% | 20 | 15% | 34 | 25% |
| Rural | 89 | 60 | 67% | 2 | 2% | 15 | 17% | 12 | 13% |
| Average | 473 | 276 | 58% | 59 | 12% | 98 | 21% | 40 | 8% |
| Low | 138 | 87 | 63% | 1 | 1% | 22 | 16% | 28 | 20% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 3,154 | 1560 | 49% | 115 | 4% | 1,061 | 34% | 418 | 13% |



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" "Highly Integrated Setting;" "21-60% Out" "Moderately Integrated Setting;" "61-99% Out" Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

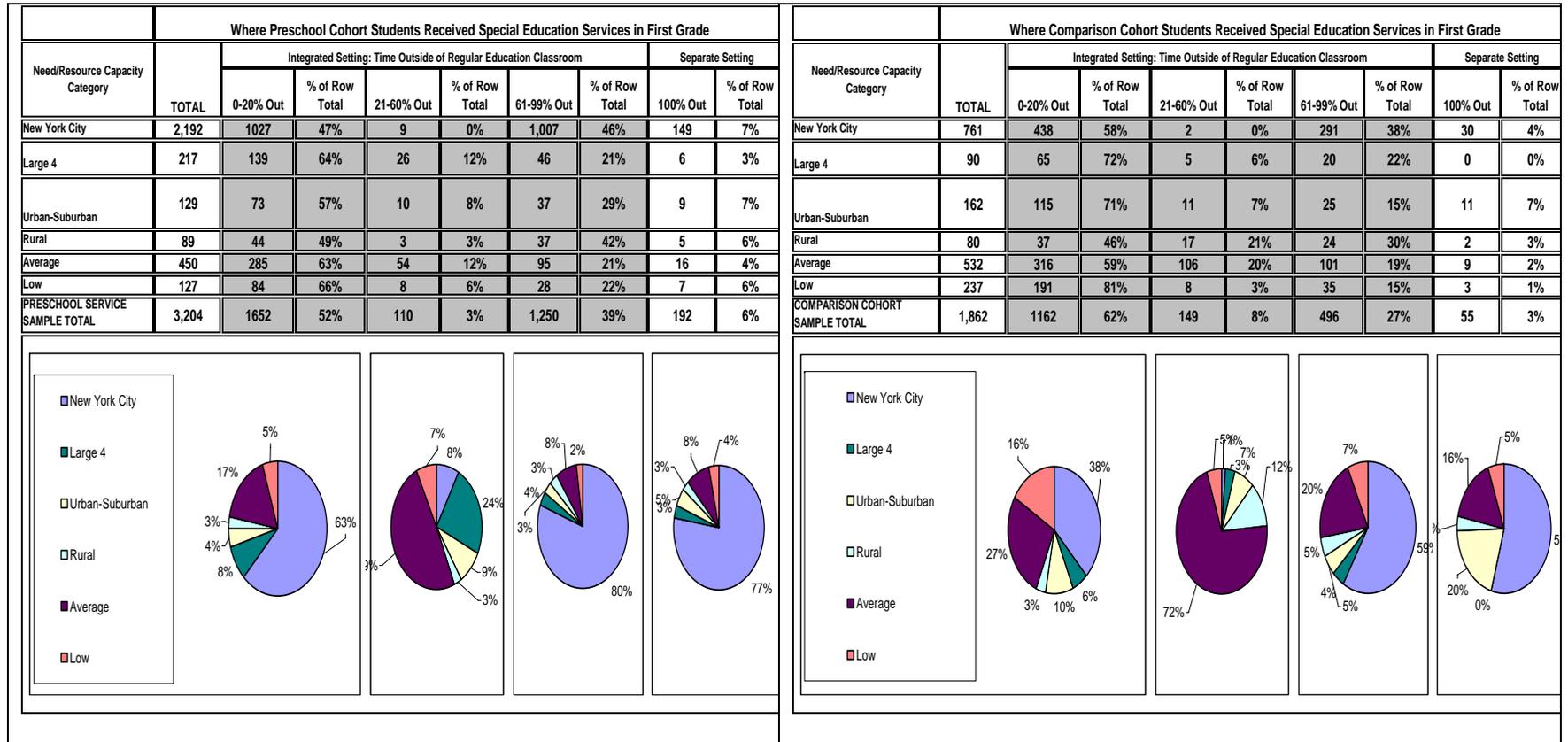
5.2.3.2 Levels of Integration in First Grade Comparing Preschool and Comparison Cohort Students by N/RC Category

Exhibit 5-14 presents first grade general education placements comparing preschool and comparison cohort students by N/RC category. As shown:

- In general, comparison cohort students were more likely to be placed in more integrated settings than their preschool cohort peers (e.g., 62% vs. 52% in Highly Integrated Settings).
- In the less integrated placement categories, nearly two-fifths (39%) of preschool cohort students were placed in Minimally Integrated Settings compared with slightly more than one-quarter (25%) of students in the comparison cohort.
- In terms of N/RC categories, preschool cohort students who tended more often to be placed in Highly Integrated Settings originated from Low Need, Large Four Cities, and Average Need districts, while those in the comparison cohort originated from the Low Need, Large Four Cities, and Urban-Suburban High Need districts.
- A slightly higher percentage of preschool cohort students than comparison cohort students in the Rural High Need and Average Need districts were placed in Highly Integrated Settings, but preschool cohort students from these N/RC districts also tended to be placed in less integrated placement categories (i.e., Minimally Integrated Settings and Separate Settings).
- Although their numbers were small in comparison to their respective samples, a higher percentage of students in the comparison cohort than in the preschool cohort were placed in Moderately Integrated Settings (8% and 3%, respectively).
- Overall, 6 percent of first grade students in the preschool cohort and 3 percent of students in the comparison cohort were in Separate Settings.
- As shown in the pie charts below the tables, students from New York City accounted for the majority of preschool cohort students in three of the four levels of integration categories (excluding Moderately Integrated Settings) compared with the comparison cohort sample, in which the majority of students originated from New York City in two of four categories (Minimally Integrated Settings and Separate Settings).

EXHIBIT 5-14

LEVELS OF INTEGRATION IN FIRST GRADE COMPARING PRESCHOOL AND COMPARISON COHORT STUDENTS BY N/R/C CATEGORY



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the “Time Spent Outside of the General Education Classroom” column categories are referred to as follows: “0-20% Out” - “Highly Integrated Setting;” “21-60% Out” - “Moderately Integrated Setting;” - “61-99% Out” - Minimally Integrated Setting;” and, “100% Out” - “Separate Setting.”

5.2.3.3 Levels of Integration in Second Grade Comparing Preschool and Comparison Cohort Students by N/RC Category

Exhibit 5-15 presents second grade general education placements, comparing preschool and comparison cohort students by N/RC category. As shown:

- By second grade comparison cohort students were more likely to be placed in more integrated settings than their preschool cohort peers (e.g., 58% vs. 45% in Highly Integrated Settings) and in both cohorts, from first to second grade there was a gradual shift from more integrated to less integrated placements.
- In the less integrated placements, nearly half (47%) of preschool cohort students were placed in Minimally Integrated Settings compared with slightly less than one-third (31%) of students in the comparison cohort.
- In terms of N/RC categories, preschool cohort students who tended more often to be placed in Highly Integrated Settings originated from Large Four Cities, Average Need, and Rural High Need districts, while those in the comparison cohort originated from the Low Need, Average Need, and Urban-Suburban High Need districts.
- Comparing first and second grade placements in Highly Integrated Settings , although overall percentages for both cohorts declined, the drop tended to be more for preschool cohort students in the Urban-Suburban High Need and Low Need districts and for comparison cohort students in the Large Four Cities, Urban-Suburban High Need, and Low Need districts.
- Although their numbers were small in comparison to their respective cohorts a higher percentage of students in the comparison cohort than in the preschool cohort were placed in Moderately Integrated Settings (8% and 3%, respectively).
- From first to second grade, percentages of students in Separate Settings for both cohorts tended to remain stable, but the shift from Highly Integrated Settings for both cohorts saw an increase in the percentage of students in Minimally Integrated Settings in all N/RC categories for the preschool cohort and four of six categories for the comparison cohort (percentages in the Rural High Need and Average Need districts declined).
- As shown in the pie charts below the tables, students from New York City accounted for the majority of preschool cohort students in three of the four levels of integration (excluding Moderately Integrated Settings), while in the comparison cohort, the majority of students originated from New York City in only one of four categories (Minimally Integrated Settings).

**EXHIBIT 5-15
LEVELS OF INTEGRATION IN SECOND GRADE COMPARING PRESCHOOL AND COMPARISON COHORT STUDENTS BY
N/R/C CATEGORY**

| Need/Resource Capacity Category | Where Preschool Cohort Students Received Special Education Services in Second Grade | | | | | | | | | Need/Resource Capacity Category | Where Comparison Cohort Students Received Special Education Services in Second Grade | | | | | | | | |
|---------------------------------------|---|---|----------------|------------|----------------|--------------|----------------|------------------|----------------|---------------------------------------|--|---|----------------|------------|----------------|--------------|----------------|------------------|----------------|
| | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom | | | | | | Separate Setting | | | TOTAL | Integrated Setting: Time Outside of Regular Education Classroom | | | | | | Separate Setting | |
| | | 0-20% Out | % of ROW Total | 21-60% Out | % of ROW Total | 61-99% Out | % of ROW Total | 100% Out | % of ROW Total | | | 0-20% Out | % of ROW Total | 21-60% Out | % of ROW Total | 61-99% Out | % of ROW Total | 100% Out | % of ROW Total |
| New York City | 2,199 | 927 | 42% | 7 | 0% | 1,148 | 52% | 117 | 5% | New York City | 1,720 | 945 | 55% | 6 | 0% | 734 | 43% | 35 | 2% |
| Large 4 | 187 | 108 | 58% | 21 | 11% | 54 | 29% | 4 | 2% | Large 4 | 133 | 74 | 56% | 12 | 9% | 44 | 33% | 3 | 2% |
| Urban-Suburban | 113 | 41 | 36% | 9 | 8% | 59 | 52% | 4 | 4% | Urban-Suburban | 293 | 166 | 57% | 55 | 19% | 44 | 15% | 28 | 10% |
| Rural | 80 | 40 | 50% | 1 | 1% | 35 | 44% | 4 | 5% | Rural | 105 | 58 | 55% | 25 | 24% | 22 | 21% | 0 | 0% |
| Average | 358 | 196 | 55% | 48 | 13% | 103 | 29% | 11 | 3% | Average | 791 | 494 | 62% | 154 | 19% | 134 | 17% | 9 | 1% |
| Low | 89 | 39 | 44% | 9 | 10% | 38 | 43% | 3 | 3% | Low | 321 | 220 | 69% | 21 | 7% | 69 | 21% | 11 | 3% |
| PRESCHOOL SERVICE SAMPLE TOTAL | 3,026 | 1,351 | 45% | 95 | 3% | 1,437 | 47% | 143 | 5% | COMPARISON COHORT SAMPLE TOTAL | 3,363 | 1,957 | 58% | 273 | 8% | 1,047 | 31% | 86 | 3% |

Legend: New York City (blue), Large 4 (green), Urban-Suburban (purple), Rural (yellow), Average (orange), Low (red)

Legend: New York City (blue), Large 4 (green), Urban-Suburban (purple), Rural (yellow), Average (orange), Low (red)

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting;" "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

5.2.3.4 Levels of Integration in Third Grade, Comparing Preschool and Comparison Cohort Students by N/RC Category

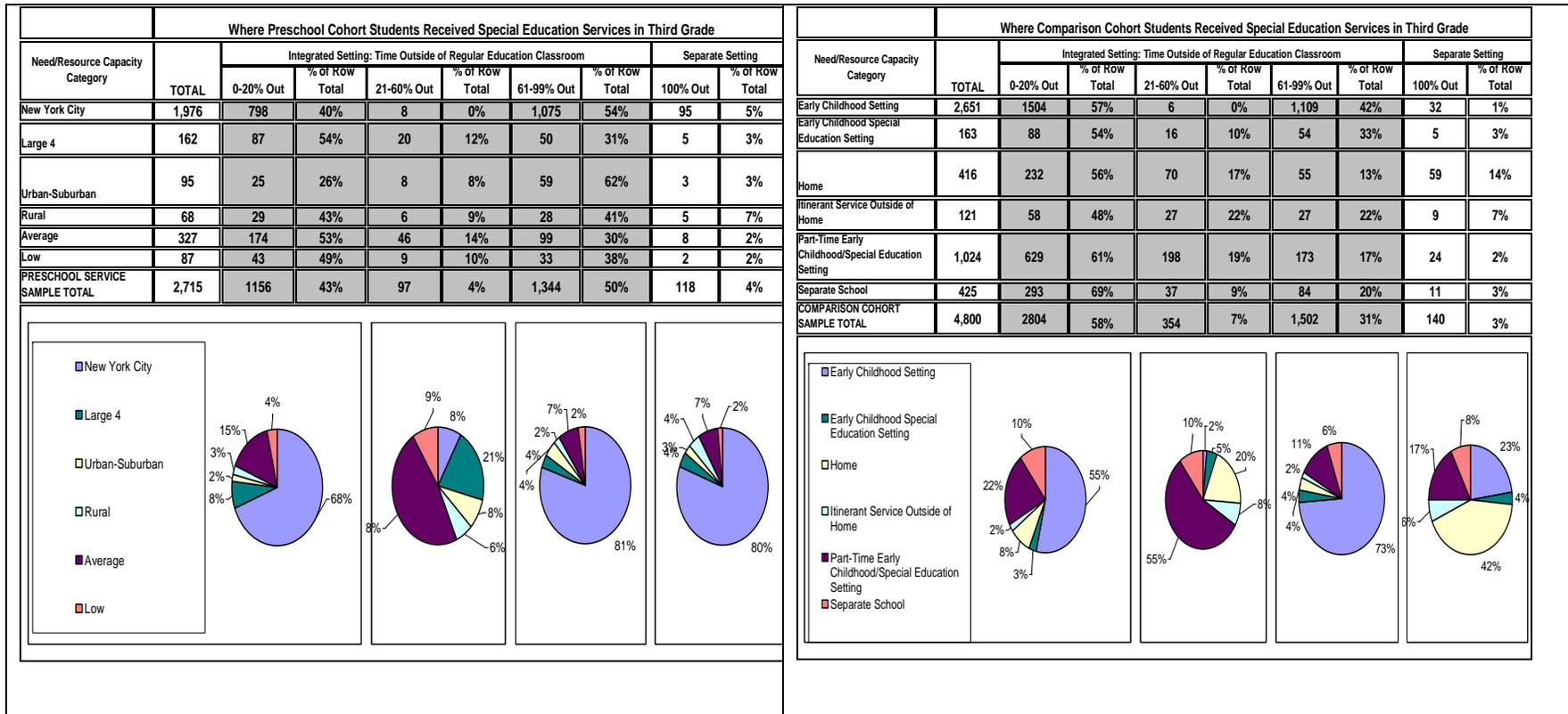
Exhibit 5-16 presents third grade general education placements, comparing preschool and comparison cohort students by N/RC category. As shown:

- In third grade, comparison cohort students continued to be more likely to be placed in more integrated settings than their preschool cohort peers, with rates in Highly Integrated Settings remaining fairly stable in all but one N/RC category (Rural High Need); on the other hand, for the preschool cohort sample, the shift to less integrated placements witnessed in first and second grades continued, although at a slower pace.
- In less integrated placements, half (50%) of preschool cohort students were placed in Minimally Integrated Settings compared with slightly less than one-third (31%) of students in the comparison cohort, the same rate for the latter as in second grade.
- In terms of N/RC categories, preschool cohort students who tended more often to be placed in Highly Integrated Settings originated from Large Four Cities, Average Need, and Low Need districts, while those in the comparison cohort originated from the Low Need, Average Need, Urban-Suburban High Need, and Large Four Cities districts.
- Comparing second and third grade placements in Highly Integrated Settings, for the preschool cohort, declines occurred in the Urban-Suburban High Need and Rural High Need districts. Percentages improved in the Low Need districts. For comparison cohort students, percentages in the most integrated settings improved in New York City and remained very stable in all others but the Rural High Need districts, which saw a decline from 55 percent in second grade to 48 percent in third grade.
- Although their numbers were small in comparison to their respective samples, as in first and second grades, a higher percentage of third grade students in the comparison cohort than in the preschool cohort were placed in Moderately Integrated Settings (7% and 4%, respectively).
- From second to third grades, percentages of students in Separate Settings for the comparison cohort tended to remain stable at 3 percent, but the preschool cohort witnessed an overall percentage decline from second to third grades from 6 to 4 percent.
- From second grade to third grade, among the preschool cohort, there was a slight growth in the percentage of students in Minimally Integrated Settings overall from 47 to 50 percent. These increases occurred in New York City, Large Four Cities, and Urban-Suburban High Need districts. Declines occurred in the Rural High Need and

Low Need districts, consistent with increases in Highly Integrated Settings. For the comparison cohort, percentages of students by N/RC category remained fairly constant from second to third grade.

- As shown in the pie charts below the tables, students from New York City accounted for the majority of preschool cohort students in three of the four levels of integration (excluding Moderately Integrated Settings), while in the comparison cohort the majority of students originated from New York City in two of four categories (Highly Integrated Settings and Minimally Integrated Settings).

**EXHIBIT 5-16
LEVELS OF INTEGRATION IN THIRD GRADE COMPARING PRESCHOOL AND COMPARISON COHORT STUDENTS BY N/R/C
CATEGORY**



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*Pie charts reference the data displayed in the column directly above each chart.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting;" "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

5.3 Disability Classifications, Comparing Preschool and Comparison Cohort Students

This section presents four sets of findings. The first compares preschool cohort disability classifications according to the setting (PD-1/4 category) in which students received preschool special education services. The second presents a similar comparison for preschool cohort students with reference to their preschool special education programs and services (PD-7) category. Each of these first two sections is followed by a series of bar graphs examining kindergarten to third grade data by PD-1/4 and PD-7 category to provide a visual presentation of trends and changes in disability classification and settings over time for the disability categories with the largest subsamples: Speech Impairment, Learning Disabilities, Emotional Disturbance, Autism, and Other Health Impairment. The third set of findings compares disability categories for preschool and comparison cohort third grade students in terms of the four levels of integration. Finally, the fourth set of findings in this section compares preschool and comparison cohort third graders with reference to the levels of integration in third grade and N/RC categorizations.

5.3.1 Kindergarten and Third Grade Disability Classifications, Comparing Preschool Cohort Students by PD-1/4 Category

Exhibits 5-17 and **5-18** report disability classifications at the first (kindergarten) and final (third grade) years of the study, respectively, for preschool cohort students by their PD-1/4 category to determine if initial disability classifications changed. There was little change in disability classifications in most PD-1/4 categories, with the exception of students who were classified with Speech Impairment and Other Health Impairment. In these two categories, the data suggest that some students in the most populated preschool special education settings—Early Childhood Settings and Early Childhood Special Education Settings—who were first classified with Speech Impairment in kindergarten were classified by third grade with Other Health Impairment. In these same PD-1/4 categories, there was an increase in percentage in the Learning Disabilities category. Autism classification percentages remained relatively unchanged from kindergarten to third grade.

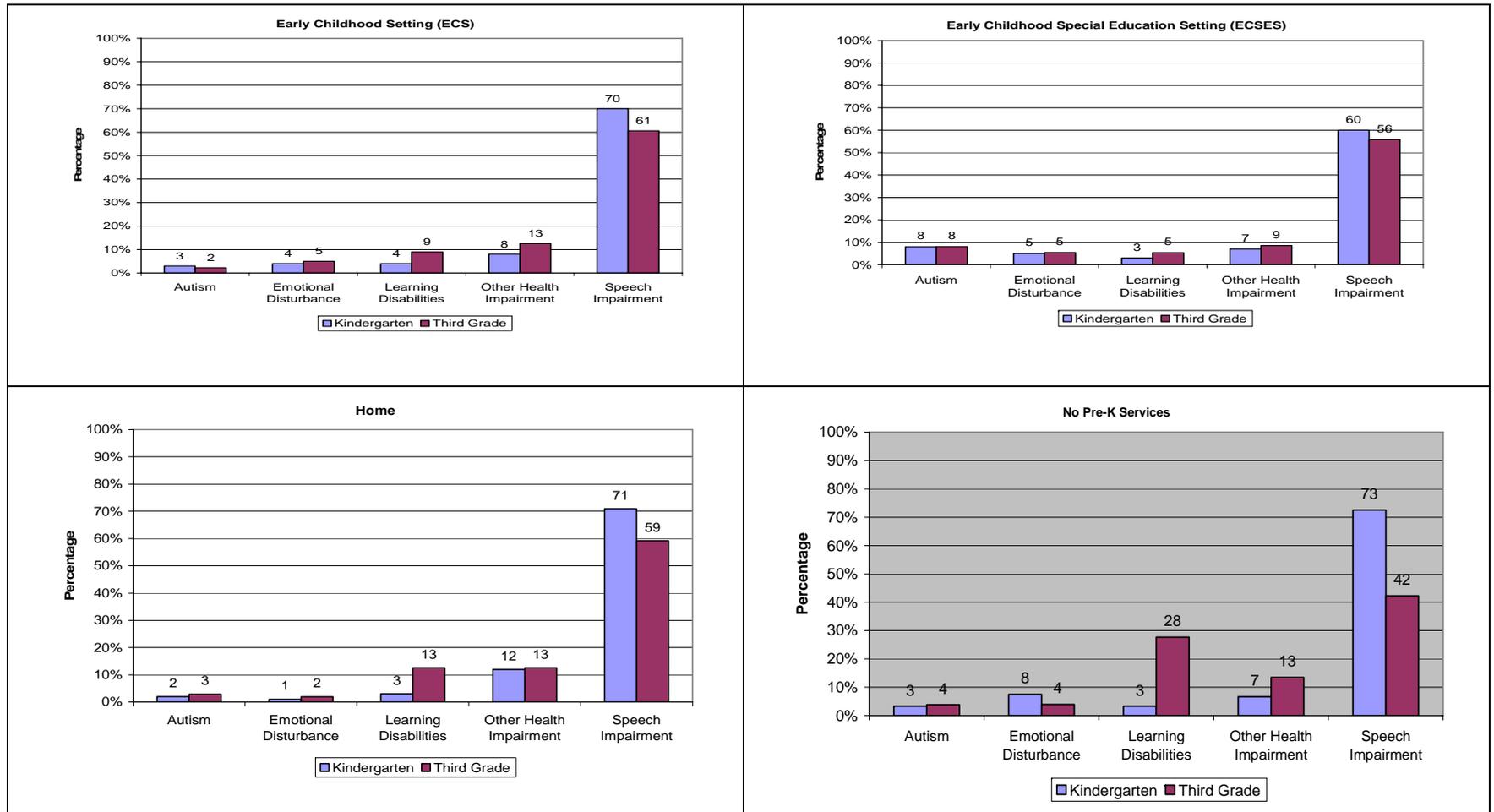
**EXHIBIT 5-17
DISABILITY CLASSIFICATIONS FOR KINDERGARTEN AND THIRD GRADE
STUDENTS BY PD-1/4 CATEGORY**

| Kindergarten Disability Classification | Early Childhood Setting (ECS) (n=847) | Early Childhood Special Education Setting (ECSES) (n=1,518) | Home (n=219) | Itinerant Service Outside of Home (in Hospital) (n=32) | P-T ECS/ P-T ECSED (n=114) | Separate School (n=220) | No Preschool Services (n=190) |
|--|---------------------------------------|---|--------------|--|----------------------------|-------------------------|---------------------------------|
| Autism | 3% | 8% | 2% | 9% | 3% | 11% | 3% |
| Deafness | 1% | 1% | 0% | 0% | 0% | 1% | 0% |
| Deafness and Blindness | 0% | <1% | 0% | 0% | 0% | 0% | 0% |
| Emotional Disturbance | 4% | 5% | 1% | 0% | 3% | 6% | 8% |
| Hearing Impairment | 1% | 1% | 1% | 0% | 1% | 1% | 1% |
| Learning Disabilities | 4% | 3% | 3% | 16% | 11% | 2% | 3% |
| Mental Retardation | 1% | 3% | 1% | 0% | 0% | 6% | 1% |
| Multiple Disabilities | 5% | 9% | 5% | 0% | 2% | 12% | 3% |
| Orthopedic Impairment | 2% | 2% | 2% | 0% | 1% | 2% | 1% |
| Other Health Impairment | 8% | 7% | 12% | 6% | 8% | 7% | 7% |
| Speech Impairment | 70% | 60% | 71% | 69% | 70% | 49% | 73% |
| Traumatic Brain Injury | <1% | 0% | 1% | 0% | 0% | 0% | 1% |
| Visual Impairment | 1% | 1% | 1% | 0% | 1% | 3% | 0% |
| Third Grade Disability Classification | Early Childhood Setting (ECS) (n=543) | Early Childhood Special Education Setting (ECSES) (n=1,241) | Home (n=103) | Itinerant Service Outside of Home (in Hospital) (n=5) | P-T ECS/ P-T ECSED (n=71) | Separate School (n=184) | No Preschool Services (n=1,936) |
| Autism | 2% | 8% | 3% | 40% | 1% | 1% | 4% |
| Deafness | 1% | 1% | 0% | 0% | 0% | 0% | 0% |
| Deafness and Blindness | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Emotional Disturbance | 5% | 5% | 2% | 0% | 1% | 1% | 4% |
| Hearing Impairment | 1% | 1% | 0% | 0% | 1% | 1% | 1% |
| Learning Disabilities | 9% | 5% | 13% | 0% | 8% | 8% | 28% |
| Mental Retardation | 2% | 3% | 1% | 0% | 3% | 3% | 1% |
| Multiple Disabilities | 6% | 9% | 6% | 0% | 0% | 0% | 6% |
| Orthopedic Impairment | 1% | 2% | 3% | 0% | 1% | 1% | 0% |
| Other Health Impairment | 13% | 9% | 13% | 20% | 10% | 10% | 13% |
| Speech Impairment | 61% | 56% | 59% | 40% | 72% | 72% | 42% |
| Visual Impairment | 1% | 1% | 1% | 0% | 1% | 1% | 0% |

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-1/4 category (The "Residential Facility" preschool setting was excluded from all charts because no study participants were placed in such a setting.)

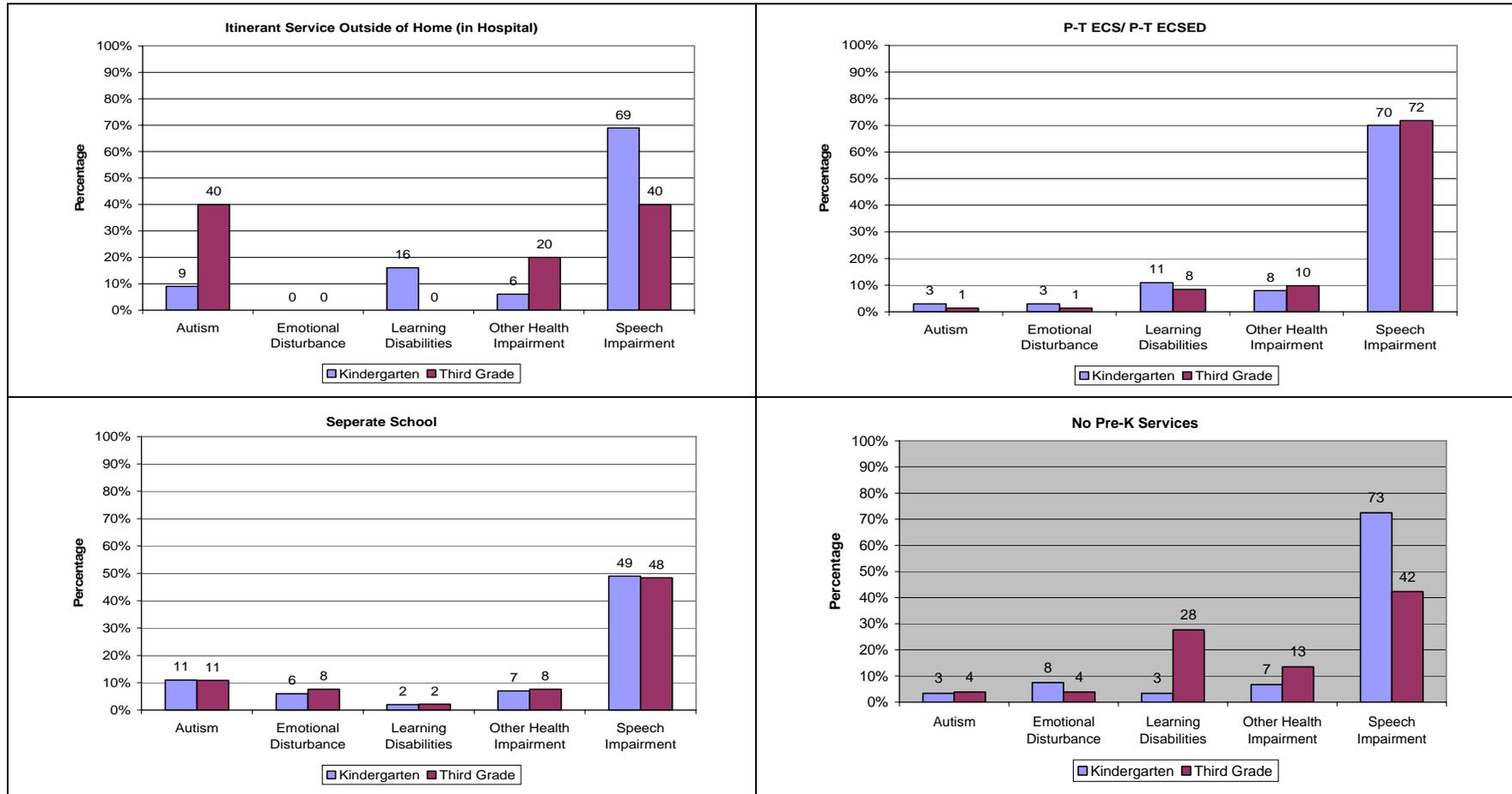
EXHIBIT 18
CLASSIFICATIONS IN KINDERGARTEN AND THIRD GRADE FOR SELECTED DISABILITIES BY PD-1/4 CATEGORY



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-1/4 category (The "Residential Facility" preschool setting was excluded from all charts because no study participants were placed in such a setting.)

EXHIBIT 18 (Continued)
CLASSIFICATIONS IN KINDERGARTEN AND THIRD GRADE FOR SELECTED DISABILITIES BY PD-1/4 CATEGORY



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-1/4 category (The "Residential Facility" preschool setting was excluded from all charts because no study participants were placed in such a setting.)

5.3.2 Kindergarten and Third Grade Disability Classifications Comparing Preschool Cohort (by PD-7 Category) and Comparison Cohort Students

Exhibits 5-19 and **5-20** report disability classifications at both the kindergarten and final (third grade) year of the study for preschool cohort students by their preschool special education programs and services (PD-7) category. As with the PD-1/4 categories described above, there was little change when disability classifications were cross tabulated by PD-7 category, again with the exception of students who were classified with Speech Impairment and Other Health Impairment. There was also a general increase in the percentage of students who were classified with Learning Disabilities. Students who were first classified with Speech Impairment in kindergarten were classified by third grade into two general disability categories—Learning Disabilities and Other Health Impairment.

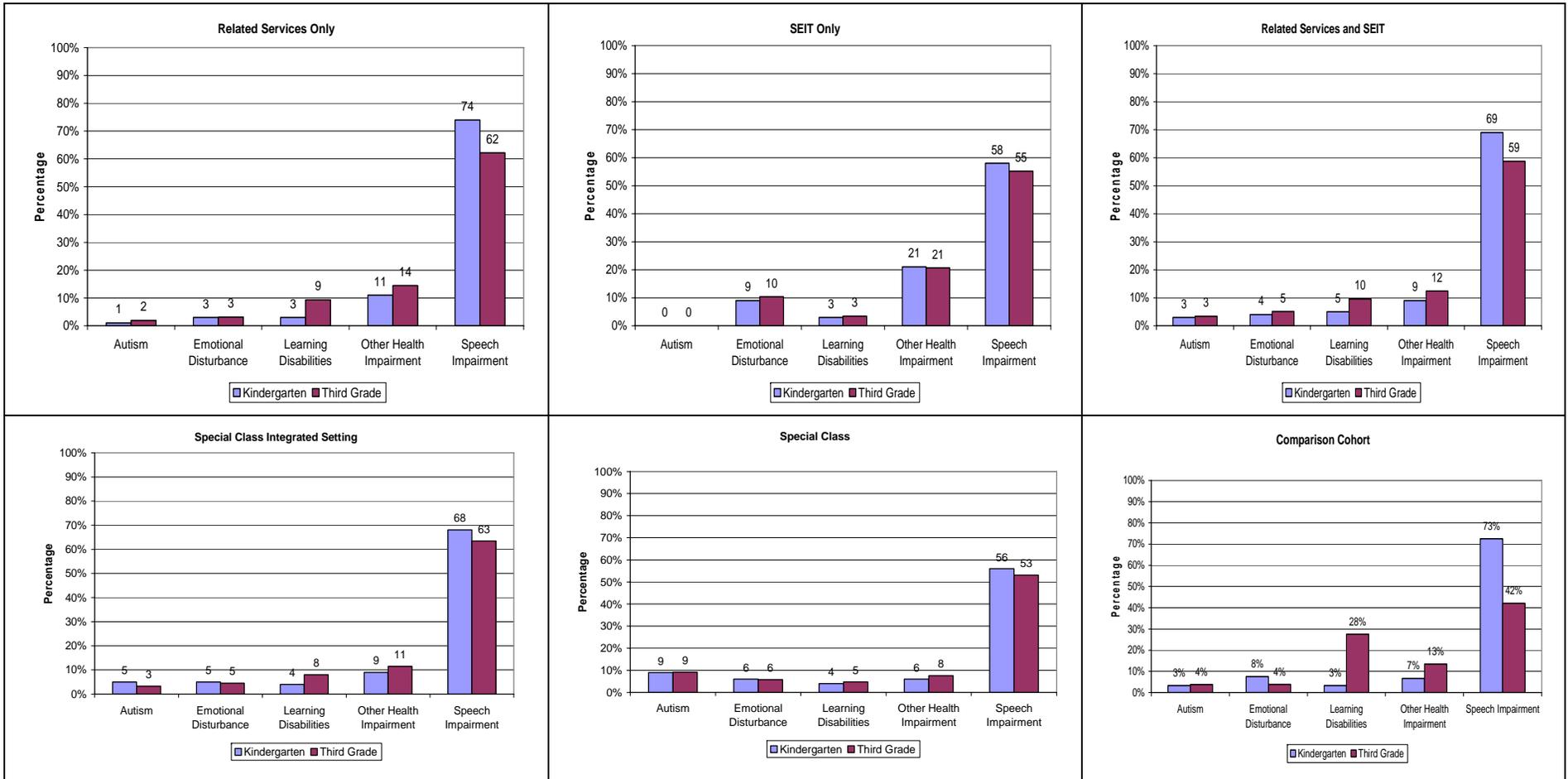
**EXHIBIT 5-19
DISABILITY CLASSIFICATIONS OF KINDERGARTEN AND THIRD GRADE STUDENTS BY GENERAL EDUCATION CLASSROOM PLACEMENTS¹**

| Kindergarten Disability Classification | Related Services Only (n=811) | SEIT Only (n=33) | Related Services and SEIT (n=245) | Special Class Integrated Setting (n=518) | Special Class (n=1,537) | No Preschool Services (n=190) |
|--|-------------------------------|------------------|-----------------------------------|--|-------------------------|---------------------------------|
| Autism | 1% | 0% | 3% | 5% | 9% | 3% |
| Deafness | 1% | 0% | 0% | <1% | 1% | 0% |
| Deafness and Blindness | 0% | 0% | 0% | 0% | <1% | 0 |
| Emotional Disturbance | 3% | 9% | 4% | 5% | 6% | 8% |
| Hearing Impairment | 1% | 6% | 1% | 1% | 1% | 1% |
| Learning Disabilities | 3% | 3% | 5% | 4% | 4% | 3% |
| Mental Retardation | 1% | 0% | 2% | 1% | 3% | 1% |
| Multiple Disabilities | 2% | 3% | 6% | 4% | 11% | 3% |
| Orthopedic Impairment | 2% | 0% | <1% | 3% | 2% | 1% |
| Other Health Impairment | 11% | 21% | 9% | 9% | 6% | 7% |
| Speech Impairment | 74% | 58% | 69% | 68% | 56% | 73% |
| Traumatic Brain Injury | <1% | 0% | <1% | 0% | 0% | 1% |
| Visual Impairment | 1% | 0% | 1% | <1% | 1% | 0% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% |
| Third Grade Disability Classification | Related Services Only (n=415) | SEIT Only (n=29) | Related Services and SEIT (n=177) | Special Class Integrated Setting (n=375) | Special Class (n=1,261) | No Preschool Services (n=1,934) |
| Autism | 2% | 0% | 3% | 3% | 3% | 4% |
| Deafness | 1% | 0% | 0% | 0% | 0% | 0% |
| Deafness and Blindness | 0% | 0% | 0% | 0% | 0% | 0% |
| Emotional Disturbance | 3% | 10% | 5% | 5% | 5% | 4% |
| Hearing Impairment | 1% | 7% | 1% | 1% | 1% | 1% |
| Learning Disabilities | 9% | 3% | 10% | 8% | 8% | 28% |
| Mental Retardation | 1% | 0% | 2% | 1% | 1% | 1% |
| Multiple Disabilities | 4% | 3% | 7% | 2% | 2% | 6% |
| Orthopedic Impairment | 2% | 0% | 0% | 3% | 3% | 0% |
| Other Health Impairment | 14% | 21% | 12% | 11% | 11% | 13% |
| Speech Impairment | 62% | 55% | 59% | 63% | 63% | 42% |
| Traumatic Brain Injury | 0% | 0% | 1% | 0% | 0% | 0% |
| Visual Impairment | 0% | 0% | 1% | 1% | 1% | 0% |

Source: New York school district data, 2001 through 2006.

¹ Preschool programs/placements were derived from children's PD-7 Report. "Special Class Integrated Setting" is a composite of Special Class Integrated Settings of all durations, and "Special Class" is a composite of Special Classes of all durations.

EXHIBIT 20
KINDERGARTEN AND THIRD GRADE DISABILITY CLASSIFICATIONS FOR SELECTED DISABILITIES, COMPARING
PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON COHORT STUDENTS



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

5.3.3 Kindergarten and Third Grade Disability Classifications and Placements in General Education for Preschool Cohort Students

Exhibits 5-21 and **5-22** chart disability classifications at kindergarten and third grade by levels of integration to determine if any shifts that may have occurred. These tables report data for students who remained classified through third grade. Percentages during the interval were affected to a degree by attrition of the sample. For example, within the largest disability classification, Speech Impairment, representation in Highly Integrated Settings decreased from 80 percent in kindergarten to 62 percent in third grade. Since percentages in the other three levels of integration remained relatively unchanged, it can be concluded that many students who were classified in kindergarten with Speech Impairment were declassified, or, as the increase in percentages in other disability categories indicates, changed to other disability categories in third grade. The latter observation is supported by a substantial increase in the Autism category (from 1% in kindergarten to 7% in third grade), in the Learning Disabilities category (from 3% in kindergarten to 7% in third grade), in the Other Health Impairment category (from 9% in kindergarten to 11% in third grade, and in the Multiple Disabilities category (from 1% in kindergarten to 4% in third grade). Other shifts occurred in Moderately Integrated Settings for students with Learning Disabilities (from 8% in kindergarten to 13% in third grade) and Multiple Disabilities (from 9% in kindergarten to 13% in third grade). In Minimally Integrated Settings, percentages of disability tended to remain stable in most categories, with the exception of Other Health Impairment, which experienced an increase from 5 percent in kindergarten to 9 percent in third grade. Finally, in Separate Settings, a decrease in percentage occurred among students classified with Autism (from 24% in kindergarten to 15% in third grade) and with Other Health Impairment (from 8% in kindergarten to 6% in third grade), and an increase occurred in percentage of students diagnosed with Multiple Disabilities (from 30% in kindergarten to 24% in third grade), with Emotional Disturbance (from 13% in kindergarten to 17% in third grade), and with Learning Disabilities (from 1% in kindergarten to 3% in third grade).

We can draw the following conclusions about the preschool cohort at third grade:

- Many students classified with Speech Impairment in kindergarten were either declassified or given a different disability classification by third grade.
- Many students classified with Autism in kindergarten were given a different disability classification by third grade. Their services tended to be more integrated into general education as the study progressed.
- Many students classified with other disabilities in kindergarten were classified by third grade with Multiple Disabilities and Learning Disabilities. In these classifications, services tended to be less integrated into general education as the study progressed.

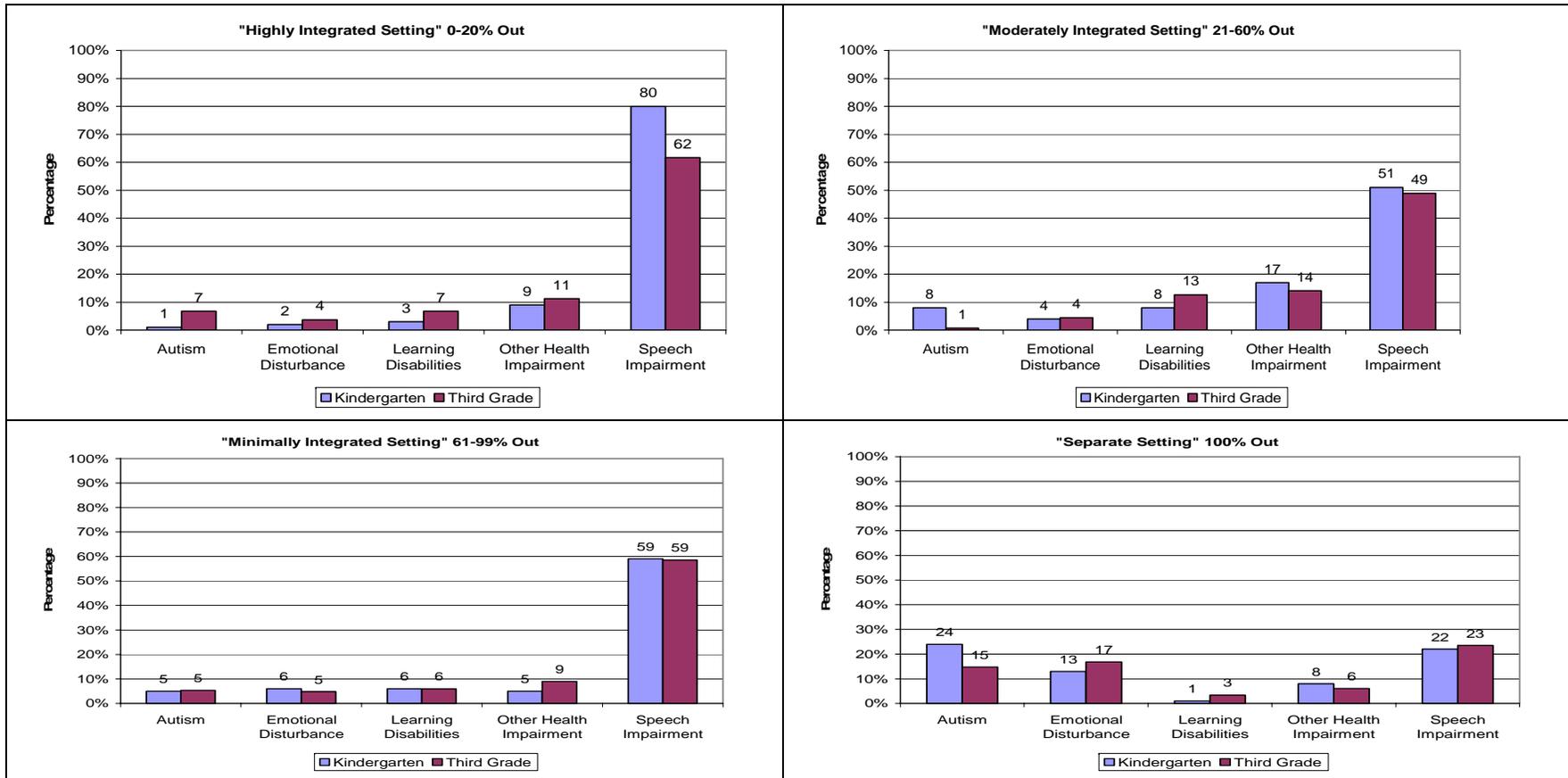
**EXHIBIT 5-21
DISABILITY CLASSIFICATIONS FOR KINDERGARTEN AND THIRD GRADE
SPECIAL EDUCATION STUDENTS BY GENERAL EDUCATION CLASSROOM
PLACEMENT FOR PRESCHOOL COHORT STUDENTS**

| Kindergarten Disability Classification | Integrated Setting: Percent of Time Outside Kindergarten | | | Separate Setting |
|--|---|-------------------|---------------------|------------------|
| | 0-20% (n=1,604) | 21-60% (n=182) | 61-99% (n=859) | 100% (n=469) |
| Autism | 1% | 8% | 5% | 24% |
| Deafness | <1% | 0% | 3% | <1% |
| Deafness and Blindness | 0% | 0% | <1% | <1% |
| Emotional Disturbance | 2% | 4% | 6% | 13% |
| Hearing Impairment | 1% | 1% | 2% | 1% |
| Learning Disabilities | 3% | 8% | 6% | 1% |
| Mental Retardation | <1% | 0% | 4% | 5% |
| Multiple Disabilities | 1% | 9% | 8% | 24% |
| Orthopedic Impairment | 3% | 1% | 1% | <1% |
| Other Health Impairment | 9% | 17% | 5% | 8% |
| Speech Impairment | 80% | 51% | 59% | 22% |
| Traumatic Brain Injury | 0% | 1% | <1% | <1% |
| Visual Impairment | <1% | 0% | 1% | 2% |
| Third Disability Classification | Integrated Setting: Percent of Time Outside Third Grade Regular | | | Separate Setting |
| | 0-20% (n=960) | 21-60% (n=135) | 61-99% (n=1,013) | 100% (n=149) |
| Autism | 7% | 1% | 5% | 15% |
| Deafness | 1% | 1% | 1% | 1% |
| Deafness and Blindness | 0% | 1% | 0% | 0% |
| Emotional Disturbance | 4% | 4% | 5% | 17% |
| Hearing Impairment | 1% | 1% | 1% | 1% |
| Learning Disabilities | 7% | 13% | 6% | 3% |
| Mental Retardation | 1% | 1% | 4% | 3% |
| Multiple Disabilities | 4% | 13% | 7% | 30% |
| Orthopedic Impairment | 3% | 1% | 1% | 0% |
| Other Health Impairment | 11% | 14% | 9% | 6% |
| Speech Impairment | 62% | 49% | 59% | 23% |
| Traumatic Brain Injury | 0% | 0% | 0% | 0% |
| Visual Impairment | 0% | 0% | 1% | 1% |

Source: New York school district data, 2001 through 2006.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

EXHIBIT 5-22
DISABILITY CLASSIFICATIONS FOR KINDERGARTEN AND THIRD GRADE SPECIAL EDUCATION STUDENTS BY GENERAL EDUCATION CLASSROOM PLACEMENT



Source: New York school district data, 2001 through 2006.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting;" "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

5.3.4 Third Grade Disability Classifications and Placements in the General Education, Comparing Preschool and Comparison Cohort Students

Exhibits 5-23 and **5-24** below report disability classifications for preschool and comparison cohort third grade students. The comparison cohort kindergarten sample was too small to permit a meaningful comparison with the preschool cohort, but the third grade data are nonetheless revealing:

- In three levels of integration—Highly Integrated, Moderately Integrated, and Minimally Integrated—preschool cohort third graders classified with Speech Impairment constituted from half to three-fifths of the sample but comprised less than one-quarter of those placed in Separate Settings. Percentages of comparison cohort students classified with Speech Impairment constituted less than half of students in the first three levels of integration. Comparison cohort students with Multiple Disabilities were most often placed in Separate Settings.
- Students with Learning Disabilities constituted a much higher percentage of the comparison cohort than of the preschool cohort.
- Third grade students with Autism constituted a slightly larger percentage of the comparison cohort than of the preschool cohort and were only slightly more likely to be placed in less integrated settings.
- Students in the Other Health Impairment category constituted a larger percentage of the comparison cohort than of the preschool cohort in Highly Integrated Settings (15% and 11%, respectively). A larger percentage of comparison cohort students than preschool cohort students in the Other Health Impairment category were placed in the less integrated settings.
- Students classified with Emotional Disturbance represented a larger percentage of the preschool cohort than of the comparison cohort, and represented roughly one-sixth of the preschool cohort students placed in Separate Settings in third grade.

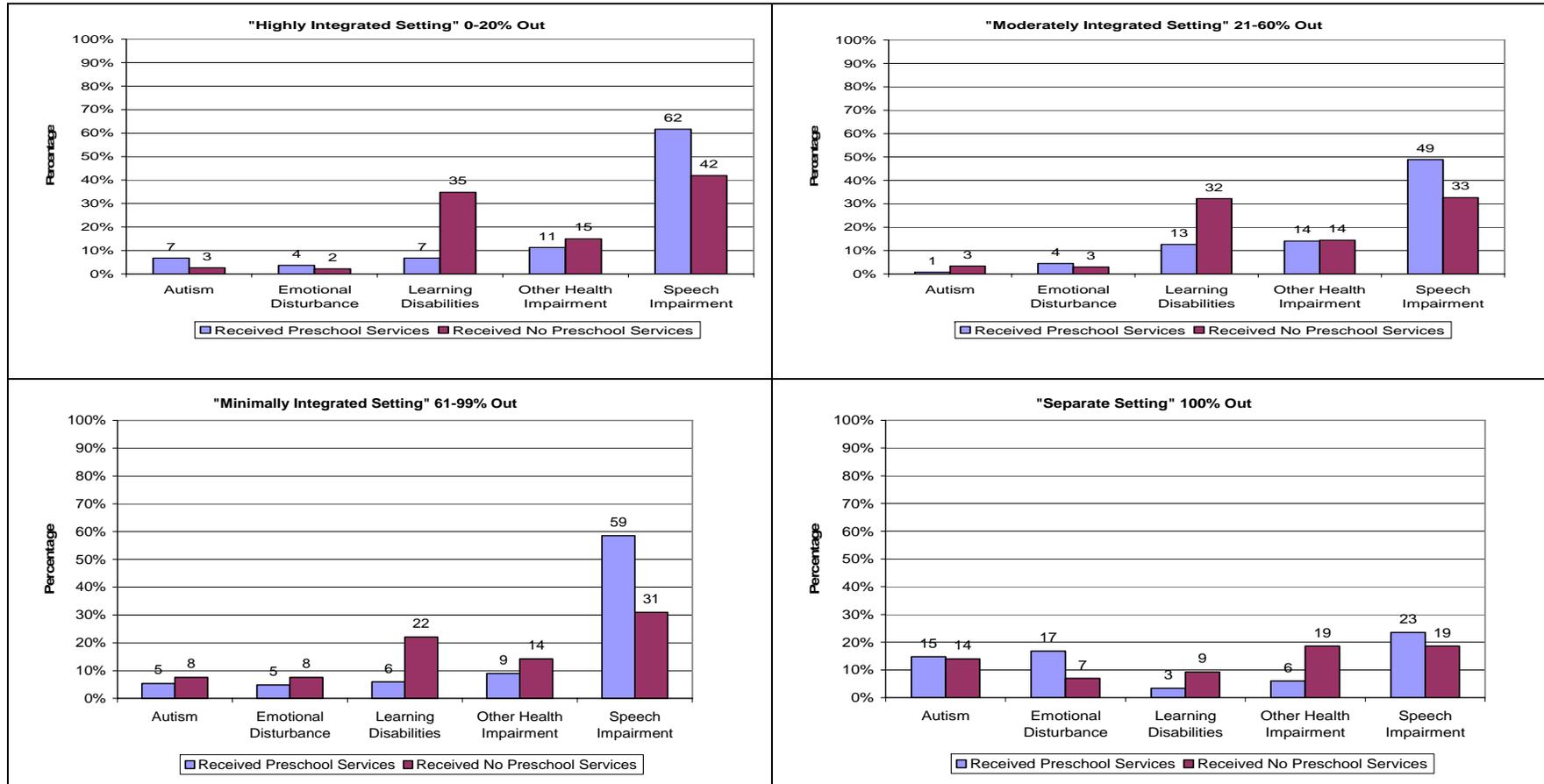
**EXHIBIT 5-23
DISABILITY CLASSIFICATIONS, COMPARING PRESCHOOL AND COMPARISON
COHORT THIRD GRADE SPECIAL EDUCATION STUDENTS BY GENERAL
EDUCATION CLASSROOM PLACEMENT**

| Third Grade Preschool Cohort Student Disability Classification | Integrated Setting: Percent of Time Outside Third Grade Regular Education Classroom | | | Separate Setting |
|--|---|----------------|------------------|------------------|
| | 0-20% (n=960) | 21-60% (n=135) | 61-99% (n=1,013) | 100% (n=149) |
| Autism | 7% | 1% | 5% | 15% |
| Deafness | 1% | 1% | 1% | 1% |
| Deafness and Blindness | 0% | 1% | 0% | 0% |
| Emotional Disturbance | 4% | 4% | 5% | 17% |
| Hearing Impairment | 1% | 1% | 1% | 1% |
| Learning Disabilities | 7% | 13% | 6% | 3% |
| Mental Retardation | 1% | 1% | 4% | 3% |
| Multiple Disabilities | 4% | 13% | 7% | 30% |
| Orthopedic Impairment | 3% | 1% | 1% | 0% |
| Other Health Impairment | 11% | 14% | 9% | 6% |
| Speech Impairment | 62% | 49% | 59% | 23% |
| Traumatic Brain Injury | 0% | 0% | 0% | 0% |
| Visual Impairment | 0% | 0% | 1% | 1% |

| Third Grade Comparison Cohort Student Disability Classification | Integrated Setting: Percent of Time Outside Third Grade Regular Education Classroom | | | Separate Setting |
|---|---|----------------|----------------|------------------|
| | 0-20% (n=828) | 21-60% (n=236) | 61-99% (n=304) | 100% (n=43) |
| Autism | 3% | 3% | 8% | 14% |
| Deafness | 0% | 0% | 0% | 2% |
| Emotional Disturbance | 2% | 3% | 8% | 7% |
| Hearing Impairment | 1% | 0% | 0% | 0% |
| Learning Disabilities | 35% | 32% | 22% | 9% |
| Mental Retardation | 0% | 0% | 4% | 5% |
| Multiple Disabilities | 1% | 12% | 12% | 21% |
| Orthopedic Impairment | 0% | 0% | 0% | 2% |
| Other Health Impairment | 15% | 14% | 14% | 19% |
| Speech Impairment | 42% | 33% | 31% | 19% |
| Visual Impairment | 0% | 1% | 0% | 0% |

Source: New York school district data, 2001 through 2006.
In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting" - "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

EXHIBIT 5-24
DISABILITY CLASSIFICATIONS, COMPARING PRESCHOOL AND COMPARISON COHORT THIRD GRADE SPECIAL EDUCATION STUDENTS BY GENERAL EDUCATION CLASSROOM PLACEMENT



Source: New York school district data, 2001 through 2006.

In the narrative, references to the "Time Spent Outside of the General Education Classroom" column categories are referred to as follows: "0-20% Out" - "Highly Integrated Setting;" "21-60% Out" - "Moderately Integrated Setting;" "61-99% Out" - "Minimally Integrated Setting;" and, "100% Out" - "Separate Setting."

5.3.5 Third Grade Disability Classifications and Placements in General Education, Comparing Preschool and Comparison Cohort Students by N/RC Category

Exhibits 5-25 and **5-26** below report disability classifications for preschool and comparison cohort third grade students. The comparison cohort kindergarten sample was too small to permit a meaningful comparison with the preschool cohort, but the third grade data are nonetheless revealing:

- In each N/RC category, preschool cohort third graders classified with Speech Impairment constituted from half to two-thirds of the N/RC subsample, but percentages of students with Speech Impairment in the comparison cohort constituted from half to slightly more than one-third of each N/RC subsample.
- Comparison cohort students were more likely to be classified with Learning Disabilities than their preschool counterparts, ranging from 22 percent to 31 percent depending on the N/RC. In the preschool cohort, Learning Disabilities classifications ranged from 4 percent to 16 percent.
- With the exception of New York City, percentages of students in the Other Health Impairment category were comparable for all N/RCs in both cohorts, ranging from 10 to 16 percent in each N/RC category. In New York City districts, 6 percent of preschool cohort third graders received this classification compared with 11 percent in the comparison cohort.
- In the Emotional Disturbance category, percentages were comparable for all N/RCs in both cohorts, ranging from 1 percent to 7 percent.
- Percentages of third graders classified with Autism ranged from 1 percent to 8 percent in the preschool cohort, and 2 percent to 7 percent in the comparison cohort.
- Percentages of third graders classified with Multiple Disabilities ranged from 3 percent to 11 percent for the preschool cohort and from 2 percent to 9 percent for the comparison cohort.

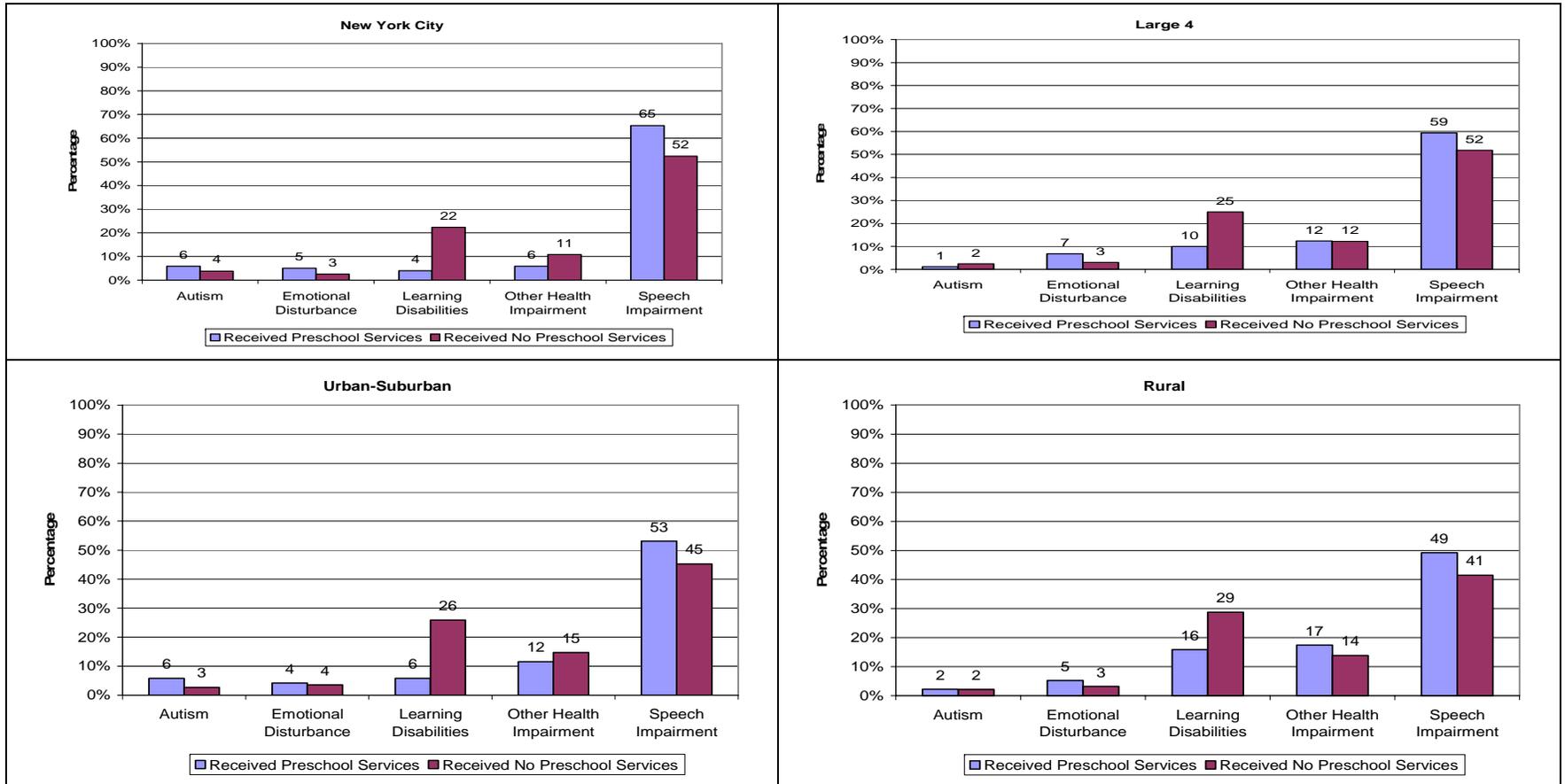
**EXHIBIT 5-25
DISABILITY CLASSIFICATIONS, COMPARING PRESCHOOL AND COMPARISON
COHORT THIRD GRADE STUDENTS BY N/RC CATEGORY**

| Preschool Cohort Third Grade Disability Classification | New York City (n = 1642) | Large 4 (n = 251) | Urban-Suburban (n = 190) | Rural (n = 132) | Average (n = 697) | Low (n = 383) | All Districts Excluding Big 5 (n=1402) |
|---|---------------------------------|--------------------------|---------------------------------|------------------------|--------------------------|----------------------|---|
| Autism | 6% | 1% | 6% | 2% | 8% | 7% | 7% |
| Deafness | 1% | 1% | 1% | 0% | 0% | 0% | 0% |
| Deafness and Blindness | 0% | 0% | 0% | 1% | 0% | 0% | 0% |
| Emotional Disturbance | 5% | 7% | 4% | 5% | 4% | 1% | 3% |
| Hearing Impairment | 1% | 0% | 2% | 0% | 1% | 2% | 1% |
| Learning Disabilities | 4% | 10% | 6% | 16% | 7% | 7% | 8% |
| Mental Retardation | 3% | 4% | 3% | 0% | 1% | 2% | 1% |
| Multiple Disabilities | 6% | 3% | 11% | 8% | 10% | 8% | 9% |
| Orthopedic Impairment | 2% | 2% | 3% | 1% | 1% | 2% | 1% |
| Other Health Impairment | 6% | 12% | 12% | 17% | 13% | 14% | 13% |
| Speech Impairment | 65% | 59% | 53% | 49% | 54% | 58% | 55% |
| Traumatic Brain Injury | 0% | 0% | 0% | 1% | 0% | 0% | 0% |
| Visual Impairment | 1% | 1% | 1% | 0% | 0% | 0% | 0% |

| Comparison Cohort Third Grade Disability Classification | New York City (n = 1934) | Large 4 (n = 164) | Urban-Suburban (n = 367) | Rural (n = 94) | Average (n = 878) | Low (n = 388) | All Districts Excluding Big 5 (n = 1727) |
|--|---------------------------------|--------------------------|---------------------------------|-----------------------|--------------------------|----------------------|---|
| Autism | 4% | 2% | 3% | 2% | 3% | 7% | 4% |
| Deafness | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Emotional Disturbance | 3% | 3% | 4% | 3% | 5% | 1% | 4% |
| Hearing Impairment | 1% | 1% | 1% | 0% | 1% | 0% | 1% |
| Learning Disabilities | 22% | 25% | 26% | 29% | 31% | 26% | 28% |
| Mental Retardation | 1% | 2% | 1% | 3% | 1% | 1% | 1% |
| Multiple Disabilities | 5% | 2% | 4% | 5% | 9% | 5% | 7% |
| Orthopedic Impairment | 0% | 0% | 1% | 0% | 0% | 1% | 0% |
| Other Health Impairment | 11% | 12% | 15% | 14% | 13% | 16% | 14% |
| Speech Impairment | 52% | 52% | 45% | 41% | 36% | 43% | 40% |
| Traumatic Brain Injury | 0% | 1% | 1% | 0% | 0% | 1% | 0% |
| Visual Impairment | 0% | 0% | 0% | 2% | 0% | 0% | 0% |

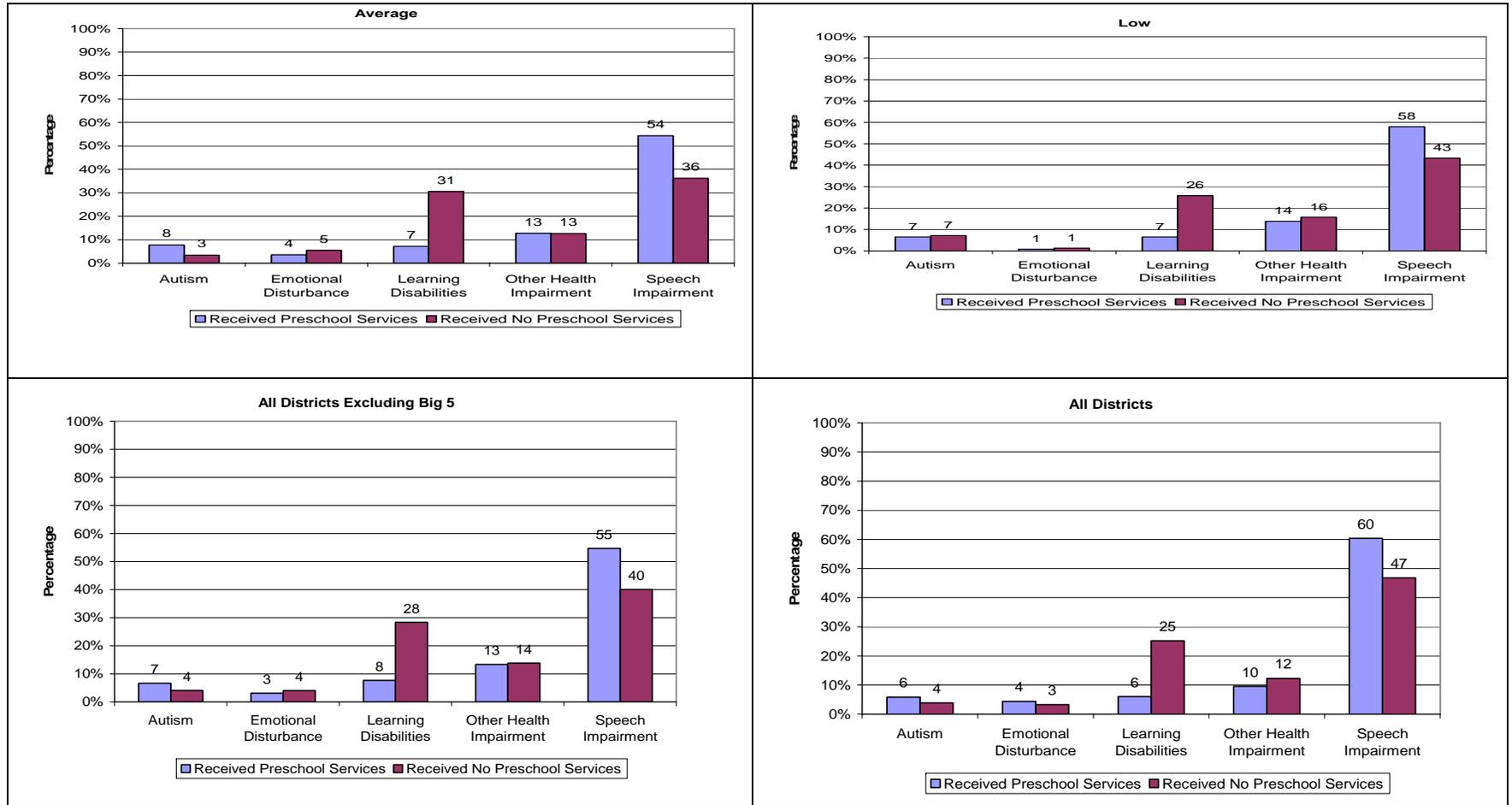
Source: New York school district data, 2001 through 2006.

EXHIBIT 5-26
DISABILITY CLASSIFICATIONS, COMPARING PRESCHOOL AND COMPARISON COHORT THIRD GRADE STUDENTS BY N/R/C CATEGORY



Source: New York school district data, 2001 through 2006.

EXHIBIT 5-26 (Continued)
DISABILITY CLASSIFICATIONS, COMPARING PRESCHOOL AND COMPARISON COHORT THIRD GRADE STUDENTS BY N/R/C CATEGORY



Source: New York school district data, 2001 through 2006.

5.4 Kindergarten Through Third Grade Outcomes, Comparing Preschool and Comparison Cohort Students

At the close of each school year, kindergarten through third grade, teachers of students participating in this study submitted observations of student progress and development in three areas of child development:

- Special assistance required in each of four domains if the child was in the general education classroom (Part A):
 - Language and Literacy Development
 - Personal and Social Development
 - Cognitive and Academic Development
 - Physical Development
- Socioemotional adjustment in four areas as measured by the Teacher-Child Rating System (T-CRS):
 - Task Orientation
 - Behavior Control
 - Assertiveness
 - Peer Social Skills
- Developmental proficiency in three academic and social developmental domains as measured by the Work Sampling System[®] (WSS):
 - Personal and Social Development
 - Language and Literacy Development
 - Mathematical Thinking

The following sections report teacher ratings of student development and progress for the preschool and comparison cohorts. Although findings are reported for both cohorts for first, second, and third grades, kindergarten findings are reported only for the preschool cohort, as the number of comparison group participants during the kindergarten year was insufficient to permit a meaningful comparison. Also, because the study was terminated in its sixth year, rather than running its full seven-year course, sample sizes for the two third grade cohorts were reduced by roughly one-half since teacher packets were administered to students who reached third grade by the sixth year (i.e., the other half would have reached third grade by the seventh year of the study).

For all three measures—Part A, the T-CRS, and the WSS—findings are reported in three sections. For each measure, the first section presents general findings in exhibits and line graphs for the preschool cohort only at each grade level; the second section reports findings for the preschool cohort by preschool (PD-7) category,³ kindergarten through third grade, and for the comparison cohort, first through third grade, to enable

³ To allow for a more detailed comparison of preschool and comparison cohort progress, for the preschool cohort the preschool service type (PD-7) classification scheme was chosen over the preschool service setting (PD-1/4) system because the PD-7 sample was considerably larger than the PD-1/4 sample.

comparisons; the third section examines findings for each measure for students in both cohorts by N/RC category.

5.4.1 Part A: Teacher Assistance Required by Students, Kindergarten Through Third Grade, Who Were Integrated into General Education Classroom Settings, Comparing Preschool and Comparison Cohort Students

Exhibit 5-27 below reports cohort Part A kindergarten findings for the preschool cohort only. **Exhibits 5-28** through **5-30** present Part A findings for both cohorts, first through third grade. General observations include the following:

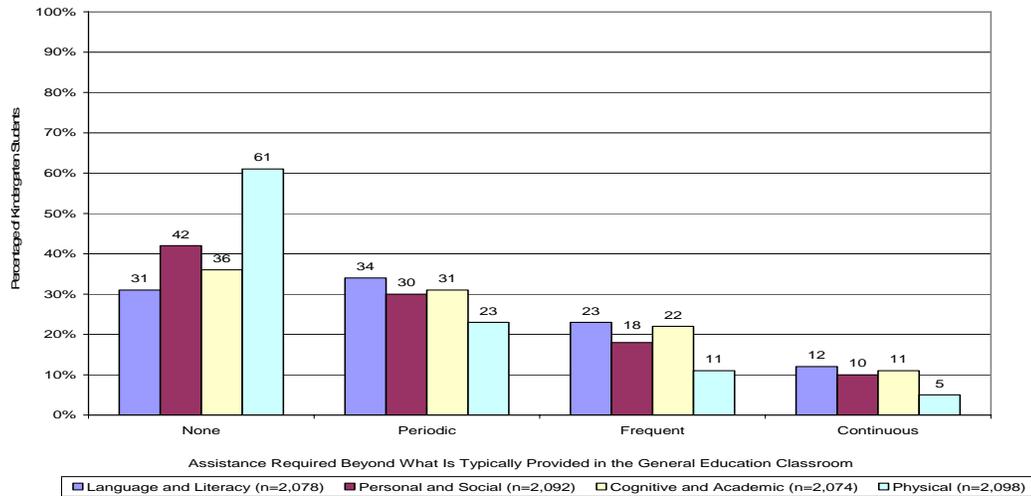
- Kindergarten students (preschool cohort only) tended to require more assistance in the “Language and Literacy Development” and “Cognitive and Academic Development” domains and the least additional assistance in the “Physical Development” domain.
- Preschool cohort first graders tended to require increasingly more assistance in all four domains than they had in kindergarten, again requiring the most assistance in the “Language and Literacy Development” and “Cognitive and Academic Development” domains and the least additional assistance in the “Physical Development” domain. Students in the comparison cohort tended to require more assistance in the same domains, and less assistance in the “Personal and Social Development” and “Physical Development” domains.
- In both the first and second grades, students in the comparison cohort tended to require significantly less assistance in all four domains than students in the preschool cohort. Rates of assistance required in each domain by students in both cohorts tended to remain at roughly the same level from one grade to the next.
- By the third grade, two significant trends emerged: Students in the preschool cohort required notably less assistance in the general education classroom in all four domains than at previous grade levels, while students in the comparison cohort required significantly more assistance. For the first time, by third grade, students in the comparison cohort required significantly more teacher assistance than students in the preschool cohort in all but the “Physical Development” domain.

Following each grade-level table in **Exhibits 5-27** through **5-30** are bar graphs of the findings. For each grade-level table, there are two bar graphs, one for the preschool cohort and one for the comparison cohort, enabling a visual comparison of findings reported in the table above them.

**EXHIBIT 5-27
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT KINDERGARTEN STUDENTS**

| Assistance Required in the General Education Classroom Beyond That Typically Provided to All Students | Percentage of Kindergarten Students Requiring Assistance in Any of Four Different Domains | | | |
|---|---|---|--|--------------------------------|
| | Language and Literacy Development (n=2,078) | Personal and Social Development (n=2,092) | Cognitive and Academic Development (n=2,074) | Physical Development (n=2,098) |
| None | 31% | 42% | 36% | 61% |
| Periodic | 34% | 30% | 31% | 23% |
| Frequent | 23% | 18% | 22% | 11% |
| Continuous | 12% | 10% | 11% | 5% |

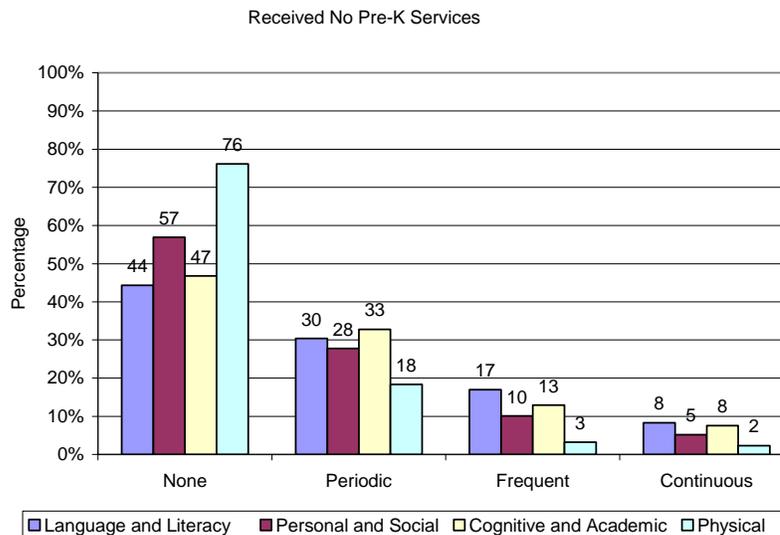
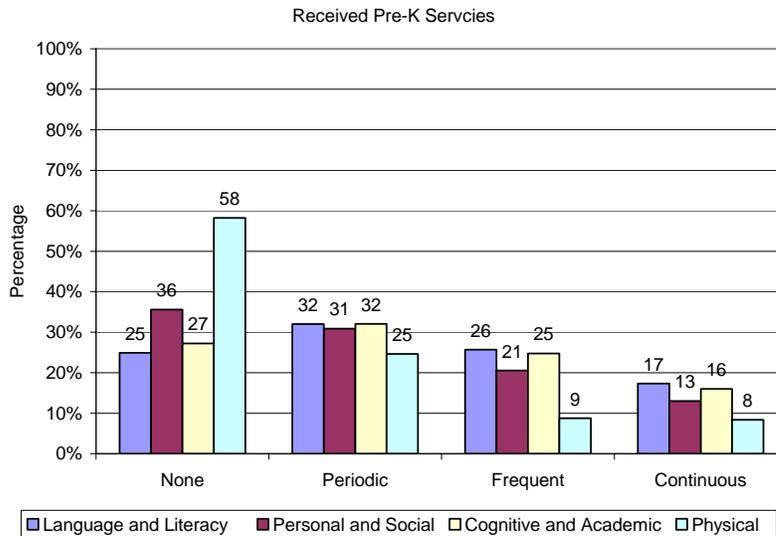
Source: MGT of America, Inc., Part A database, 2002 through 2006.



Source: New York school district data, 2001 through 2006.

EXHIBIT 5-28
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT FIRST GRADE STUDENTS

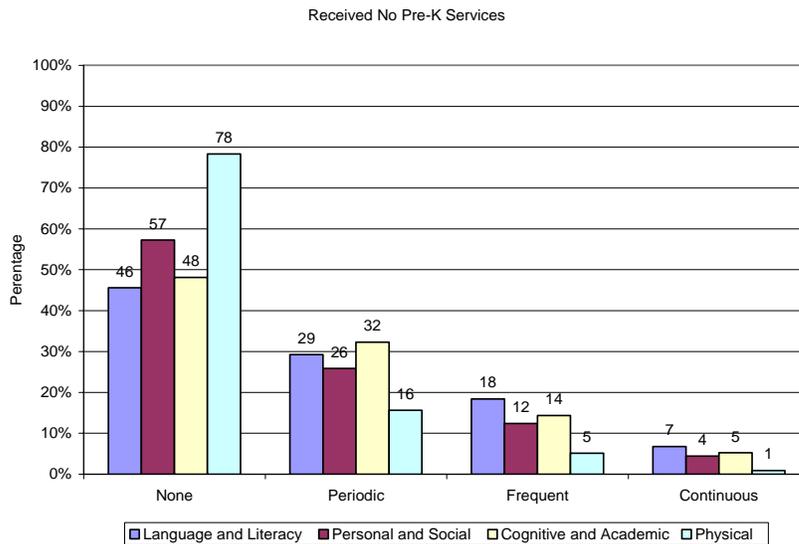
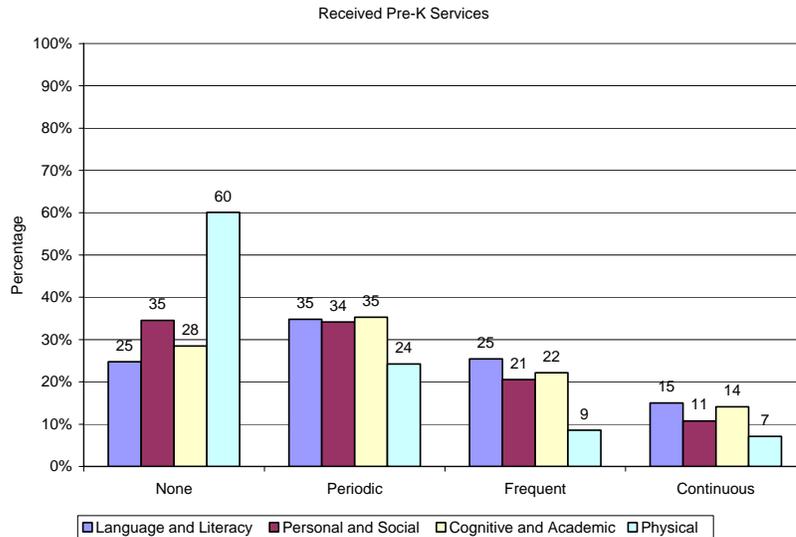
| Assistance Required in the General Education Classroom Beyond That Typically Provided to All Students | Percentage of First Grade Students Requiring Assistance in Any of Four Different Domains | | | | | | | |
|---|--|------------------|---------------------------------|------------------|------------------------------------|------------------|----------------------|------------------|
| | Language and Literacy Development | | Personal and Social Development | | Cognitive and Academic Development | | Physical Development | |
| | Pre-K (n=727) | No Pre-K (n=648) | Pre-K (n=755) | No Pre-K (n=652) | Pre-K (n=720) | No Pre-K (n=650) | Pre-K (n=776) | No Pre-K (n=653) |
| None | 25% | 44% | 36% | 57% | 27% | 47% | 58% | 76% |
| Periodic | 32% | 30% | 31% | 28% | 32% | 33% | 25% | 18% |
| Frequent | 26% | 17% | 21% | 10% | 25% | 13% | 9% | 3% |
| Continuous | 17% | 8% | 13% | 5% | 16% | 8% | 8% | 2% |



Source: New York school district data, 2001 through 2006.

**EXHIBIT 5-29
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT SECOND GRADE STUDENTS**

| Assistance Required in the General Education Classroom Beyond That Typically Provided to All Students | Percentage of Second Grade Students Requiring Assistance in Any of Four Different Domains | | | | | | | |
|---|---|------------------|---------------------------------|------------------|------------------------------------|------------------|----------------------|------------------|
| | Language and Literacy Development | | Personal and Social Development | | Cognitive and Academic Development | | Physical Development | |
| | Pre-K (n=719) | No Pre-K (n=533) | Pre-K (n=735) | No Pre-K (n=541) | Pre-K (n=723) | No Pre-K (n=536) | Pre-K (n=759) | No Pre-K (n=544) |
| None | 25% | 46% | 35% | 57% | 28% | 48% | 60% | 78% |
| Periodic | 35% | 29% | 34% | 26% | 35% | 32% | 24% | 16% |
| Frequent | 25% | 18% | 21% | 12% | 22% | 14% | 9% | 5% |
| Continuous | 15% | 7% | 11% | 4% | 14% | 5% | 7% | 1% |

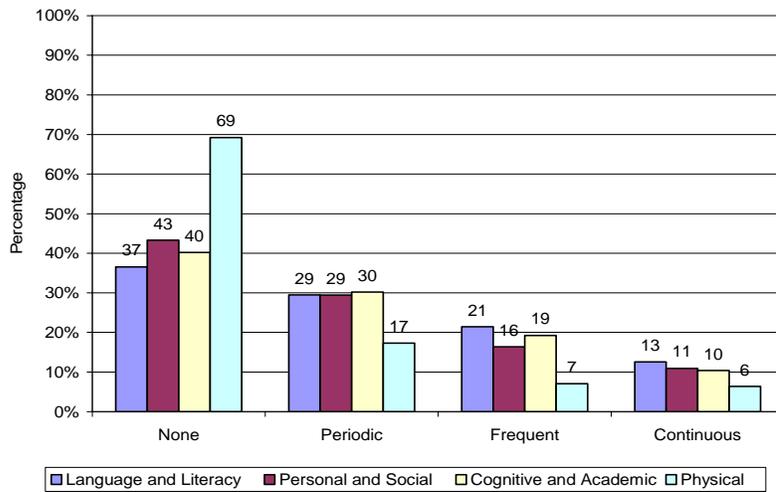


Source: New York school district data, 2001 through 2006.

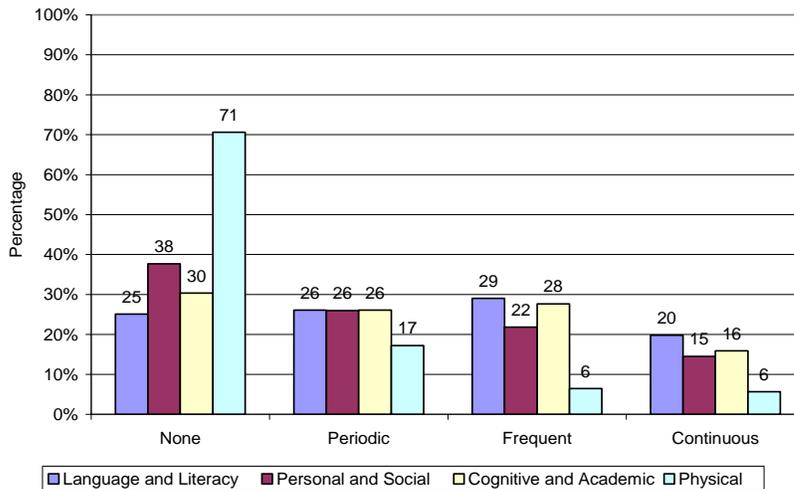
**EXHIBIT 5-30
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT THIRD GRADE STUDENTS**

| Assistance Required in the General Education Classroom Beyond That Typically Provided to All Students | Percentage of Third Grade Students Requiring Assistance in Any of Four Different Domains | | | | | | | |
|---|--|------------------|---------------------------------|------------------|------------------------------------|------------------|----------------------|------------------|
| | Language and Literacy Development | | Personal and Social Development | | Cognitive and Academic Development | | Physical Development | |
| | Pre-K (n=882) | No Pre-K (n=510) | Pre-K (n=891) | No Pre-K (n=531) | Pre-K (n=888) | No Pre-K (n=521) | Pre-K (n=907) | No Pre-K (n=545) |
| None | 37% | 25% | 43% | 38% | 40% | 30% | 69% | 71% |
| Periodic | 29% | 26% | 29% | 26% | 30% | 26% | 17% | 17% |
| Frequent | 21% | 29% | 16% | 22% | 19% | 28% | 7% | 6% |
| Continuous | 13% | 20% | 11% | 15% | 10% | 16% | 6% | 6% |

Received Pre-K Services



Received No Pre-K Services



Source: New York school district data, 2001 through 2006.

5.4.2 Part A: Teacher Assistance Required in the General Education Classroom by Preschool and Comparison Cohort Students

Exhibits in the following sections offer a more detailed presentation of Part A findings in four domains of student development—“Language and Literacy Development,” “Personal and Social Development,” “Cognitive and Academic,” and “Physical”—at each grade level for the preschool cohort. Findings are presented according to PD-7 category and include comparison data for first through third grade students who received no preschool special education services.⁴

5.4.2.1 Part A: Teacher Assistance Required in the General Education Classroom by Preschool Cohort Kindergarten Students, by PD-7 Category

Exhibits 5-31 and **5-32** report findings for preschool cohort kindergarten students by PD-7 category and in each developmental domain. Preschool cohort findings led to the following observations:

- In the “Language and Literacy Development” domain, kindergarten students who received preschool Related Services Only tended to require much less teacher assistance in the classroom than kindergarten students in other PD-7 categories. For example, nearly half of kindergartners who received preschool Related Services Only (45%) required no teacher assistance, compared with one-fifth or less of kindergartners in other PD-7 categories (range = 10% to 22%).
- In the “Personal and Social Development” domain, kindergarten students who received preschool Related Services Only tended to require considerably less teacher assistance than students in other PD-7 categories. Nearly three-fifths who received preschool Related Services Only (57%) required no teacher assistance, compared with 14 to 34 percent of kindergartners in other PD-7 categories.
- In the “Cognitive and Academic Development” domain, kindergarten students who received preschool Related Services Only tended to require less teacher assistance than students in other PD-7 categories. Half of those who received preschool Related Services Only (50%) required no teacher assistance, compared with 14 to 27 percent of kindergartners in other PD-7 categories.
- In the “Physical Development” domain, a much larger proportion of kindergarten students in all PD-7 categories tended to require less teacher assistance than they required in the other three developmental domains. In each PD-7 category, percentages ranged from 50 percent (Special Class) to 72 percent (Related Services Only).

⁴ Findings for the comparison cohort are not reported at the kindergarten level owing to insufficient sample size.

- In general, in all four Part A developmental domains, kindergarten students who received preschool Special Class services tended to require teacher assistance more frequently than those in other PD-7 categories, and Related Services Only kindergartners required assistance less frequently than those in other categories.

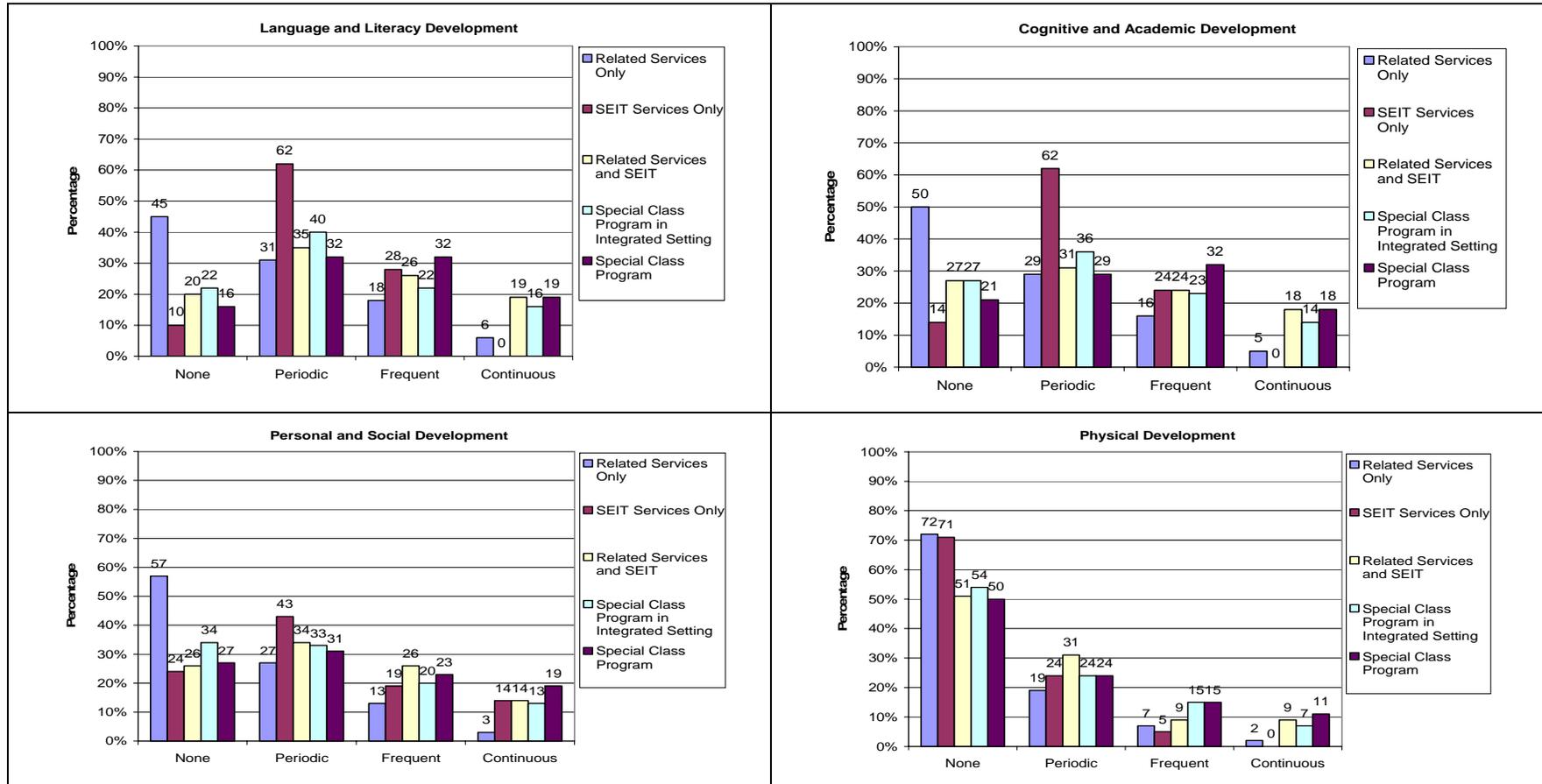
**EXHIBIT 5-31
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT KINDERGARTEN STUDENTS, BY PD-7 CATEGORY**

| Percentage of Kindergarten Students Requiring Assistance Beyond that Typically Provided in General Education Classrooms in Various Developmental Domains by Preschool PD-7 Placement | | | | |
|---|--|-------------------------------------|-------------------------------------|---------------------------------------|
| Preschool PD-7 Placement | Kindergarten Language and Literacy Development | | | |
| | No Assistance Required | Requires Periodic Assistance | Requires Frequent Assistance | Requires Continuous Assistance |
| Related Services Only (n=834) | 45% | 31% | 18% | 6% |
| SEIT Services Only (n=21) | 10% | 62% | 28% | 0% |
| Related Services and SEIT (n=119) | 20% | 35% | 26% | 19% |
| Special Class Program in Integrated Setting (n=317) | 22% | 40% | 22% | 16% |
| Special Class Program (n=472) | 16% | 32% | 32% | 19% |
| Preschool PD-7 Placement | Kindergarten Personal and Social Development | | | |
| Related Services Only (n=840) | 57% | 27% | 13% | 3% |
| SEIT Services Only (n=21) | 24% | 43% | 19% | 14% |
| Related Services and SEIT (n=118) | 26% | 34% | 26% | 14% |
| Special Class Program in Integrated Setting (n=318) | 34% | 33% | 20% | 13% |
| Special Class Program (n=475) | 27% | 31% | 23% | 19% |
| Preschool PD-7 Placement | Kindergarten Cognitive and Academic Development | | | |
| Related Services Only (n=837) | 50% | 29% | 16% | 5% |
| SEIT Services Only (n=21) | 14% | 62% | 24% | 0% |
| Related Services and SEIT (n=119) | 27% | 31% | 24% | 18% |
| Special Class Program in Integrated Setting (n=313) | 27% | 36% | 23% | 14% |
| Special Class Program (n=471) | 21% | 29% | 32% | 18% |
| Preschool PD-7 Placement | Kindergarten Physical Development | | | |
| Related Services Only (n=837) | 72% | 19% | 7% | 2% |
| SEIT Services Only (n=21) | 71% | 24% | 5% | 0% |
| Related Services and SEIT (n=119) | 51% | 31% | 9% | 9% |
| Special Class Program in Integrated Setting (n=320) | 54% | 24% | 15% | 7% |
| Special Class Program (n=483) | 50% | 24% | 15% | 11% |

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.) Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

EXHIBIT 5-32
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION KINDERGARTEN CLASSROOM BY PRESCHOOL COHORT
KINDERGARTEN STUDENTS, BY PD-7 CATEGORY



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting" are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

5.4.2.2 Part A: Teacher Assistance Required in the General Education Classroom Comparing Preschool Cohort (by PD-7 Category) and Comparison Cohort First Grade Students

Exhibits 5-33 and **5-34** report findings for preschool cohort first grade students by PD-7 category and for comparison cohort first graders in each developmental domain:

- In the “Language and Literacy Development” domain, first grade students who received preschool Related Services Only tended to require much less teacher assistance in the classroom than first grade students in other PD-7 categories. For example, nearly half of first graders who received preschool Related Services Only (45%) required no teacher assistance, compared with one-fifth or less of first graders who received preschool special education services in other PD-7 categories (range = 14% to 25%) The comparison cohort students (27%), whose frequencies across all four levels of teacher assistance tended to emulate frequencies for preschool cohort first graders who received preschool Special Class services.
- In the “Personal and Social Development” domain, first grade students who received preschool Related Services Only tended to require considerably less teacher assistance than students in other PD-7 categories but began a gradual decline from kindergarten levels. Nearly three-fifths of those who received preschool Related Services Only (58%) required no teacher assistance, unlike first grade students in other PD-7 categories (range = 21% to 33%, a significant increase from kindergarten levels) and comparison cohort first graders (40%).
- In the “Cognitive and Academic Development” domain, first grade students who received preschool Related Services Only tended to require less teacher assistance than students in other PD-7 categories but more assistance than in other Part A domains, and more assistance than was required in kindergarten. Nearly half who received preschool Related Services Only (48%) required no teacher assistance, unlike first graders in other PD-7 categories (range = 16% to 26%) and comparison cohort students (26%), whose frequencies across all four teacher assistance domains tended to emulate those of preschool cohort students who received Special Education Programs in an Integrated Class.
- In the “Physical Development” domain, compared with the other three Part A domains, a much larger proportion of first grade students in all PD-7 categories tended to require less teacher assistance than they required in the other three developmental domains. In each PD-7 category, percentages ranged from 48 percent (Special Class) to 71 percent (Related Services Only) compared with comparison cohort students, who tended also to score higher than all preschool cohort students in all PD-7 categories but Related Services Only.

- In general, in all four Part A developmental domains, first grade students who received preschool Special Class services tended to require teacher assistance more frequently than those in other PD-7 categories, and Related Services Only first graders required assistance less frequently than those in other categories, whereas comparison cohort student frequencies varied from domain to domain, occasionally mimicking those of preschool cohort first graders who had received services in less integrated settings.

**EXHIBIT 5-33
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM,
COMPARING PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON
COHORT FIRST GRADE STUDENTS**

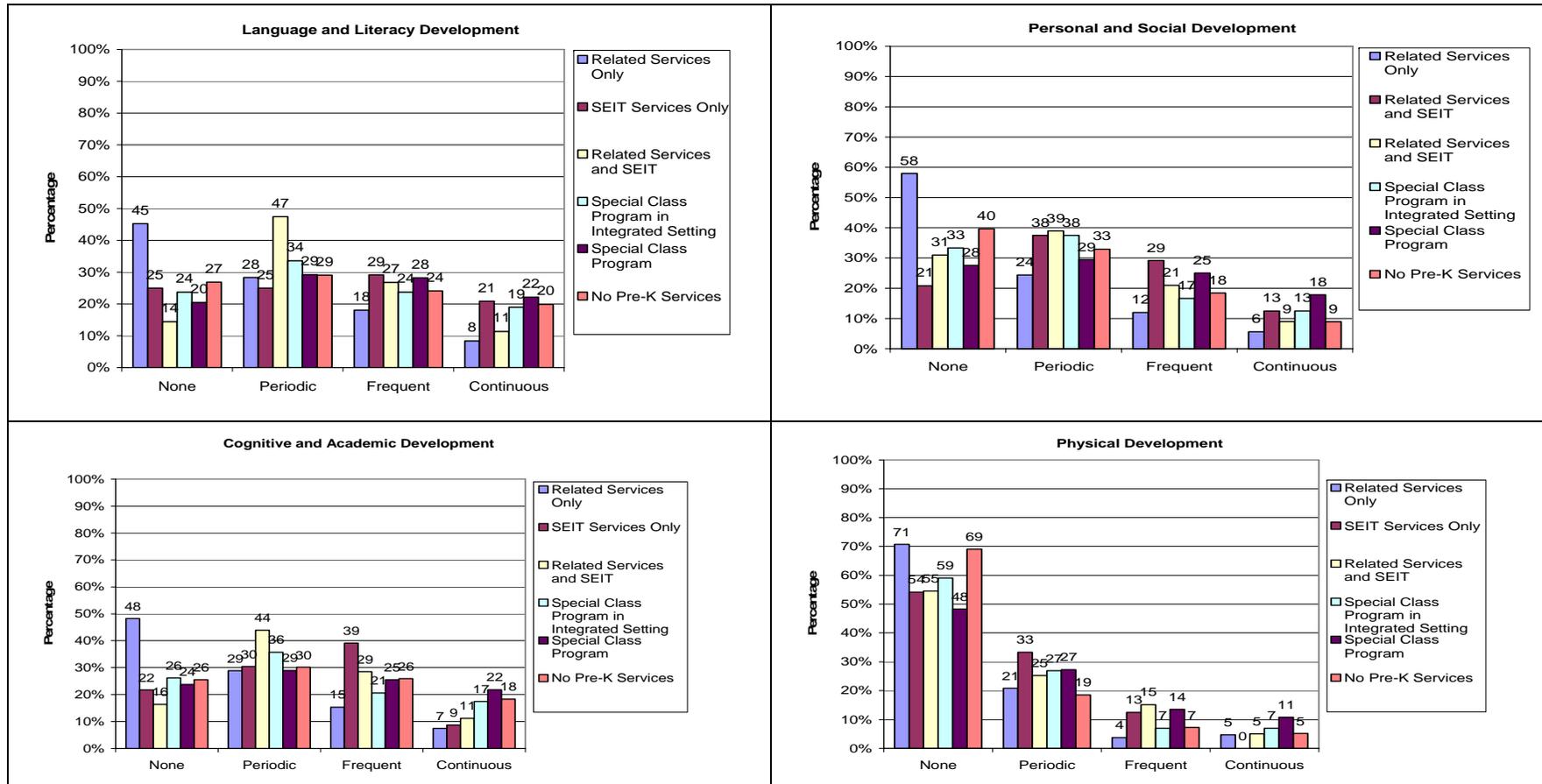
| Percentage of First Grade Students Requiring Assistance Beyond That Typically Provided in General Education Classrooms in Various Developmental Domains by Preschool PD-7 Placement | | | | |
|--|---|-------------------------------------|-------------------------------------|---------------------------------------|
| Preschool PD-7 Placement | First Grade Language and Literacy Development | | | |
| | No Assistance Required | Requires Periodic Assistance | Requires Frequent Assistance | Requires Continuous Assistance |
| Related Services Only (n=787) | 45% | 28% | 18% | 8% |
| SEIT Services Only (n=24) | 25% | 25% | 29% | 21% |
| Related Services and SEIT (n=97) | 14% | 47% | 27% | 11% |
| Special Class Program in Integrated Setting (n=253) | 24% | 34% | 24% | 19% |
| Special Class Program (n=411) | 20% | 29% | 28% | 22% |
| No Pre-K Services (n=904) | 27% | 29% | 24% | 20% |
| Preschool PD-7 Placement | First Grade Personal and Social Development | | | |
| Related Services Only (n=799) | 58% | 24% | 12% | 6% |
| SEIT Services Only (n=24) | 21% | 38% | 29% | 13% |
| Related Services and SEIT (n=100) | 31% | 39% | 21% | 9% |
| Special Class Program in Integrated Setting (n=264) | 33% | 38% | 17% | 13% |
| Special Class Program (n=431) | 28% | 29% | 25% | 18% |
| No Pre-K Services (n=938) | 40% | 33% | 18% | 9% |
| Preschool PD-7 Placement | First Grade Cognitive and Academic Development | | | |
| Related Services Only (n=788) | 48% | 29% | 15% | 7% |
| SEIT Services Only (n=23) | 22% | 30% | 39% | 9% |
| Related Services and SEIT (n=98) | 16% | 44% | 29% | 11% |
| Special Class Program in Integrated Setting (n=252) | 26% | 36% | 21% | 17% |
| Special Class Program (n=404) | 24% | 29% | 25% | 22% |
| No Pre-K Services (n=921) | 26% | 30% | 26% | 18% |
| Preschool PD-7 Placement | First Grade Physical Development | | | |
| Related Services Only (n=810) | 71% | 21% | 4% | 5% |
| SEIT Services Only (n=24) | 54% | 33% | 13% | 0% |
| Related Services and SEIT (n=99) | 55% | 25% | 15% | 5% |
| Special Class Program in Integrated Setting (n=271) | 59% | 27% | 7% | 7% |
| Special Class Program (n=443) | 48% | 27% | 14% | 11% |
| No Pre-K Services (n=965) | 69% | 19% | 7% | 5% |

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting" are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

EXHIBIT 5-34
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM, COMPARING PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON COHORT FIRST GRADE STUDENTS



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

5.4.2.3 Part A: Teacher Assistance Required in the General Education Classroom, Comparing Preschool Cohort (by PD-7 Category) and Comparison Cohort Second Grade Students

Exhibits 5-35 and **5-36** report findings by PD-7 category for preschool cohort second grade students and for comparison cohort second graders in each developmental domain:

- In the “Language and Literacy Development” domain, frequencies for second grade students who received preschool Related Services Only and Special Class services and for comparison cohort second graders remained relatively unchanged from first grade levels. Second graders who had received preschool SEIT and Related Services and Special Class Programs required less continuous assistance than comparison cohort students.
- In the “Personal and Social Development” domain, second grade students who received preschool Related Services Only and Special Class Programs in Integrated Settings tended to require considerably less teacher assistance than students in other preschool special education programs and services and less teacher assistance than comparison cohort second graders. Preschool cohort second graders who had been in Special Class Programs in preschool experienced a slight decline in required teacher assistance. The comparison cohort students experienced a considerable decline in required teacher assistance.
- In the “Cognitive and Academic Development” domain, preschool cohort second grade students from all preschool special education programs and services categories and comparison cohort students both tended to require less teacher assistance than they had in first grade.
- In the “Physical Development” domain, a much larger proportion of second grade students from all preschool special education programs and services categories tended to require less teacher assistance than they required in the other three developmental domains and less assistance than they required in first grade. Comparison cohort students tended to require slightly more assistance than they had in first grade.
- In general, in all four Part A developmental domains, preschool cohort second grade students who received preschool services in Special Class Programs tended to require teacher assistance more frequently than students in other categories. Preschool cohort second graders who had received Related Services Only required assistance less frequently than those in other categories. Comparison cohort student frequencies varied from domain to domain and often required more assistance than preschool special education students, depending on the developmental domain.

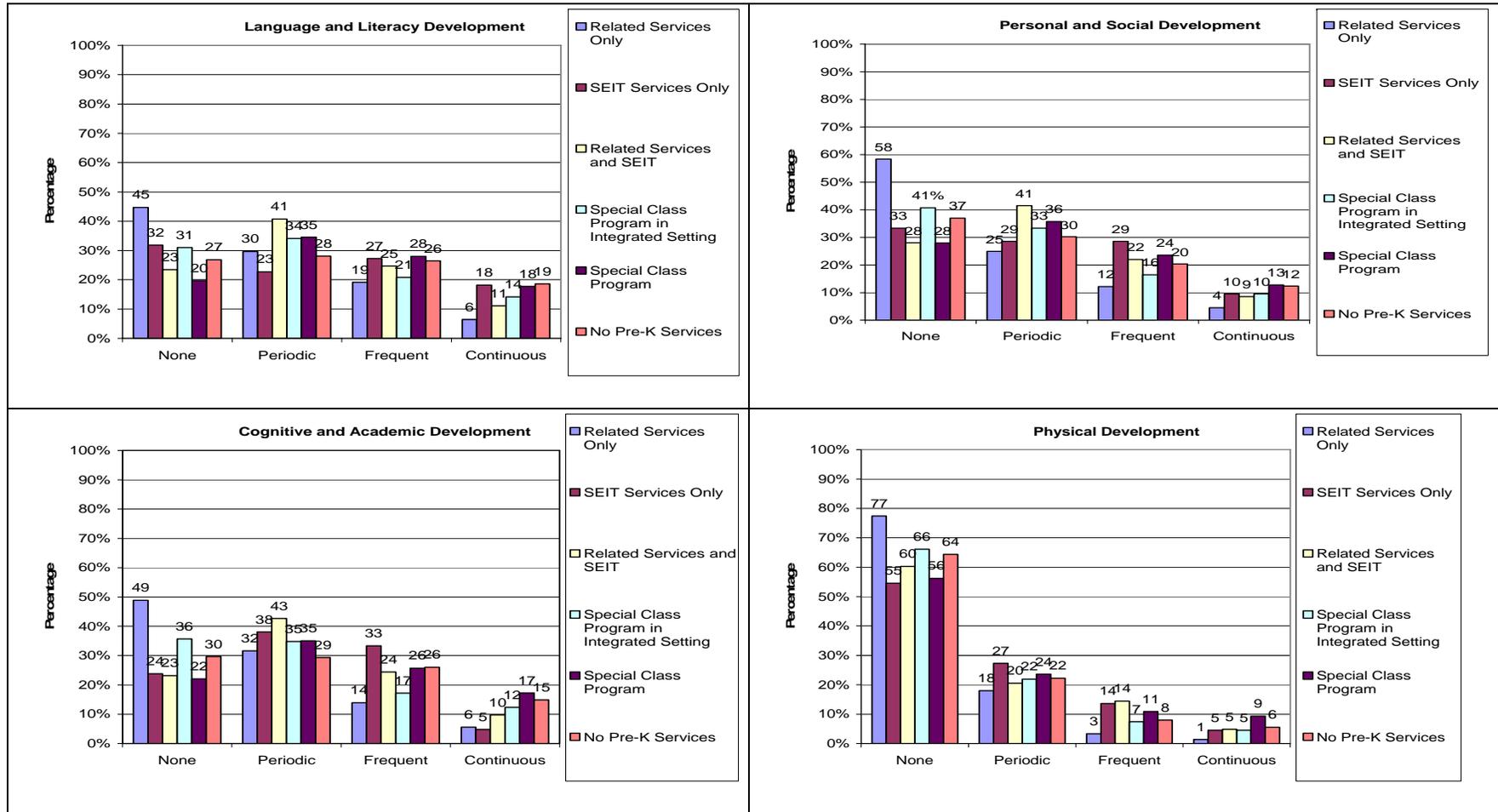
**EXHIBIT 5-35
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM,
COMPARING PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON
COHORT SECOND GRADE STUDENTS**

| Percentage of Second Grade Students Requiring Assistance Beyond That Typically Provided in General Education Classrooms in Various Developmental Domains by Preschool PD-7 Placement | | | | |
|---|--|-------------------------------------|-------------------------------------|---------------------------------------|
| Preschool PD-7 Placement | Second Grade Language and Literacy Development | | | |
| | No Assistance Required | Requires Periodic Assistance | Requires Frequent Assistance | Requires Continuous Assistance |
| Related Services Only (n=573) | 45% | 30% | 19% | 6% |
| SEIT Services Only (n=22) | 32% | 23% | 27% | 18% |
| Related Services and SEIT (n=81) | 23% | 41% | 25% | 11% |
| Special Class Program in Integrated Setting (n=226) | 31% | 34% | 21% | 14% |
| Special Class Program (n=350) | 20% | 35% | 28% | 18% |
| Comparison Cohort (n=1311) | 27% | 28% | 26% | 19% |
| Preschool PD-7 Placement | Second Grade Personal and Social Development | | | |
| Related Services Only (n=581) | 58% | 25% | 12% | 4% |
| SEIT Services Only (n=21) | 33% | 29% | 29% | 10% |
| Related Services and SEIT (n=82) | 28% | 41% | 22% | 9% |
| Special Class Program in Integrated Setting (n=231) | 41% | 33% | 16% | 10% |
| Special Class Program (n=361) | 28% | 36% | 24% | 13% |
| Comparison Cohort (n=1357) | 37% | 30% | 20% | 12% |
| Preschool PD-7 Placement | Second Grade Cognitive and Academic Development | | | |
| Related Services Only (n=575) | 49% | 32% | 14% | 6% |
| SEIT Services Only (n=21) | 24% | 38% | 33% | 5% |
| Related Services and SEIT (n=82) | 23% | 43% | 24% | 10% |
| Special Class Program in Integrated Setting (n=227) | 36% | 35% | 17% | 12% |
| Special Class Program (n=354) | 22% | 35% | 26% | 17% |
| Comparison Cohort (n=1337) | 30% | 29% | 26% | 15% |
| Preschool PD-7 Placement | Second Grade Physical Development | | | |
| Related Services Only (n=579) | 77% | 18% | 3% | 1% |
| SEIT Services Only (n=22) | 55% | 27% | 14% | 5% |
| Related Services and SEIT (n=83) | 60% | 20% | 14% | 5% |
| Special Class Program in Integrated Setting (n=242) | 66% | 22% | 7% | 5% |
| Special Class Program (n=377) | 56% | 24% | 11% | 9% |
| Comparison Cohort (n=1397) | 64% | 22% | 8% | 6% |

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.) Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

EXHIBIT 5-36
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM, COMPARING PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON COHORT SECOND GRADE STUDENTS



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting" are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

5.4.2.4 Part A: Teacher Assistance Required in the General Education Classroom, Comparing Preschool Cohort (by PD-7 Category) and Comparison Cohort Third Grade Students

Exhibits 5-37 and 5-38 report findings by PD-7 category for preschool cohort third grade students and for comparison cohort third graders in each developmental domain:

- In the “Language and Literacy Development” domain, from kindergarten through third grade, students who had received preschool Related Services Only and Special Class Program services tended to require less teacher assistance by third grade. Third grade students who had received preschool Related Services and SEIT tended to require more teacher assistance than they required in kindergarten. Rates of third grade students requiring teacher assistance for students who had received preschool Special Class Programs in an Integrated Setting emulated second grade rates but improved from kindergarten to third grade. Third graders in the comparison cohort required more teacher assistance in third grade than they needed in first grade.
- In the “Personal and Social Development” domain, from kindergarten through third grade, percentages of students who had received preschool Related Services Only remained stable from kindergarten levels in the four teacher assistance categories but more third graders required continuous assistance than had kindergartners. Preschool cohort third graders who received preschool Special Class Programs and Special Class Programs in an Integrated Setting required less assistance in third grade than in kindergarten. Preschool cohort students in the SEIT and Related Services and SEIT categories tended to require more teacher assistance in third grade than they required in kindergarten. Assistance required by the comparison cohort increased from first through third grades.
- In the “Cognitive and Academic Development” domain, preschool cohort students from all preschool special education programs and services categories but SEIT and Related Services and SEIT tended to require less teacher assistance in third grade than they required in kindergarten. Comparison cohort third grade students required slightly less teacher assistance than they required in first grade.
- In the “Physical Development” domain, a much larger proportion of the preschool cohort continued to require less teacher assistance in third grade than they required in the other three developmental domains. Preschool cohort students required considerably less assistance in third grade than they required in kindergarten, but comparison cohort students tended to require slightly more assistance than they required in first grade.
- In general, in all four Part A developmental domains, third grade students who had received preschool services in Special Class Programs tended to require teacher assistance more frequently than those previously served in other PD-7 categories. Preschool cohort

students who had received Related Services Only preschool special education services required assistance less frequently in third grade than those previously served in other PD-7 categories. Comparison cohort third grade student frequencies, as in first and second grade, varied from domain to domain. These students required more assistance than preschool cohort students, depending on the developmental domain.

**EXHIBIT 5-37
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM,
COMPARING PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON
COHORT THIRD GRADE STUDENTS**

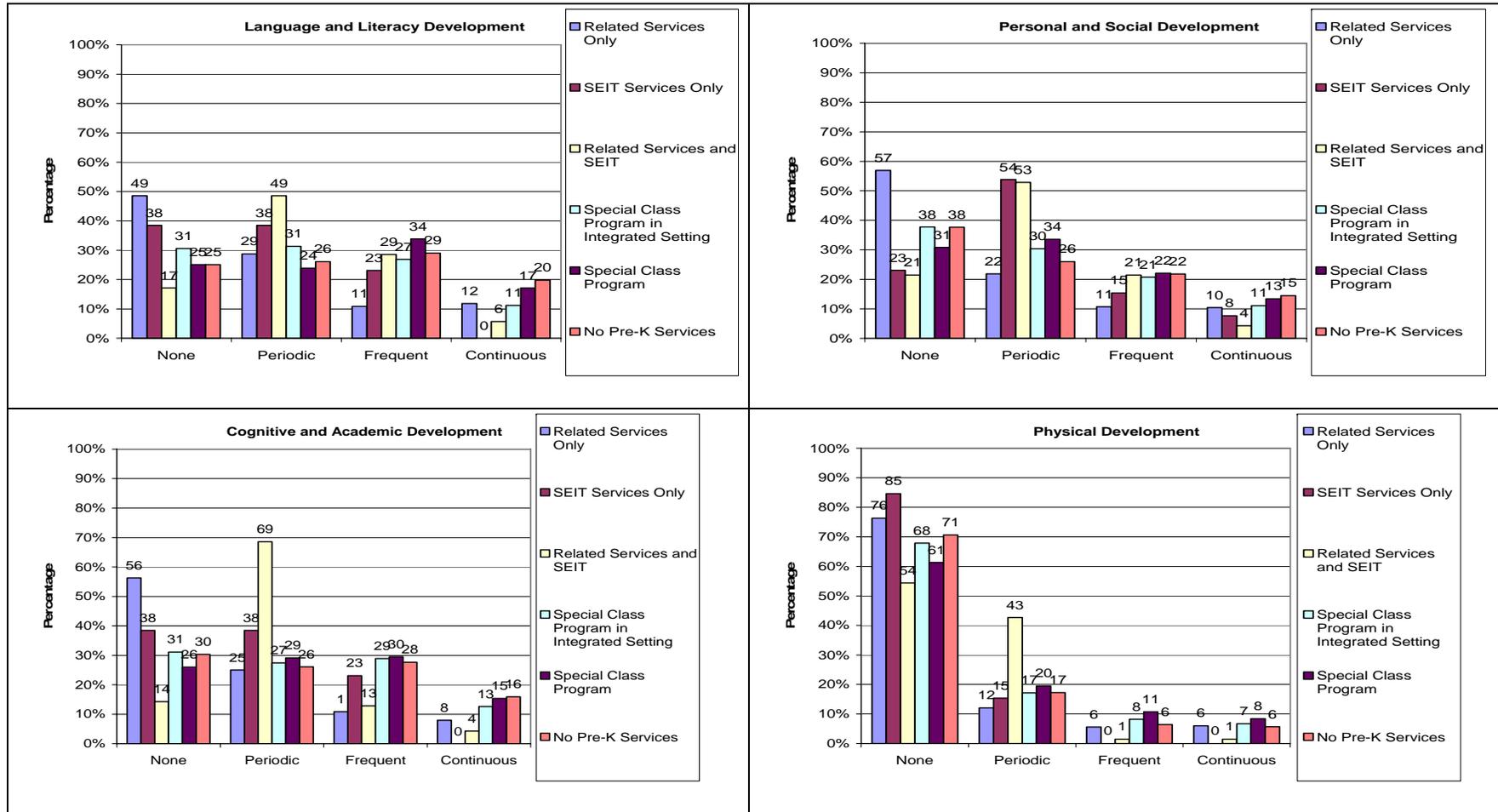
| Percentage of Third Grade Students Requiring Assistance Beyond That Typically Provided in General Education Classrooms in Various Developmental Domains by Preschool PD-7 Placement | | | | |
|--|---|-------------------------------------|-------------------------------------|---------------------------------------|
| Preschool PD-7 Placement | Third Grade Language and Literacy Development | | | |
| | No Assistance Required | Requires Periodic Assistance | Requires Frequent Assistance | Requires Continuous Assistance |
| Related Services Only (n=414) | 49% | 29% | 11% | 12% |
| SEIT Services Only (n=13) | 38% | 38% | 23% | 0% |
| Related Services and SEIT (n=70) | 17% | 49% | 29% | 6% |
| Special Class Program in Integrated Setting (n=134) | 31% | 31% | 27% | 11% |
| Special Class Program (n=251) | 25% | 24% | 34% | 17% |
| No Pre-K Services (n=510) | 25% | 26% | 29% | 20% |
| Preschool PD-7 Placement | Third Grade Personal and Social Development | | | |
| Related Services Only (n=420) | 57% | 22% | 11% | 10% |
| SEIT Services Only (n=13) | 23% | 54% | 15% | 8% |
| Related Services and SEIT (n=70) | 21% | 53% | 21% | 4% |
| Special Class Program in Integrated Setting (n=135) | 38% | 30% | 21% | 11% |
| Special Class Program (n=253) | 31% | 34% | 22% | 13% |
| No Pre-K Services (n=531) | 38% | 26% | 22% | 15% |
| Preschool PD-7 Placement | Third Grade Cognitive and Academic Development | | | |
| Related Services Only (n=416) | 56% | 25% | 11% | 8% |
| SEIT Services Only (n=13) | 38% | 38% | 23% | 0% |
| Related Services and SEIT (n=70) | 14% | 69% | 13% | 4% |
| Special Class Program in Integrated Setting (n=135) | 31% | 27% | 29% | 13% |
| Special Class Program (n=254) | 26% | 29% | 30% | 15% |
| No Pre-K Services (n=521) | 30% | 26% | 28% | 16% |
| Preschool PD-7 Placement | Third Grade Physical Development | | | |
| Related Services Only (n=431) | 76% | 12% | 6% | 6% |
| SEIT Services Only (n=13) | 85% | 15% | 0% | 0% |
| Related Services and SEIT (n=68) | 54% | 43% | 1% | 1% |
| Special Class Program in Integrated Setting (n=134) | 68% | 17% | 8% | 7% |
| Special Class Program (n=261) | 61% | 20% | 11% | 8% |
| No Pre-K Services (n=545) | 71% | 17% | 6% | 6% |

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting" are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

EXHIBIT 5-38
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION THIRD GRADE CLASSROOM, COMPARING PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON COHORT THIRD GRADE STUDENTS



Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

5.4.2.5 Part A: Teacher Assistance Required by Preschool Cohort Students, Kindergarten Through Third Grade, by N/RC Category

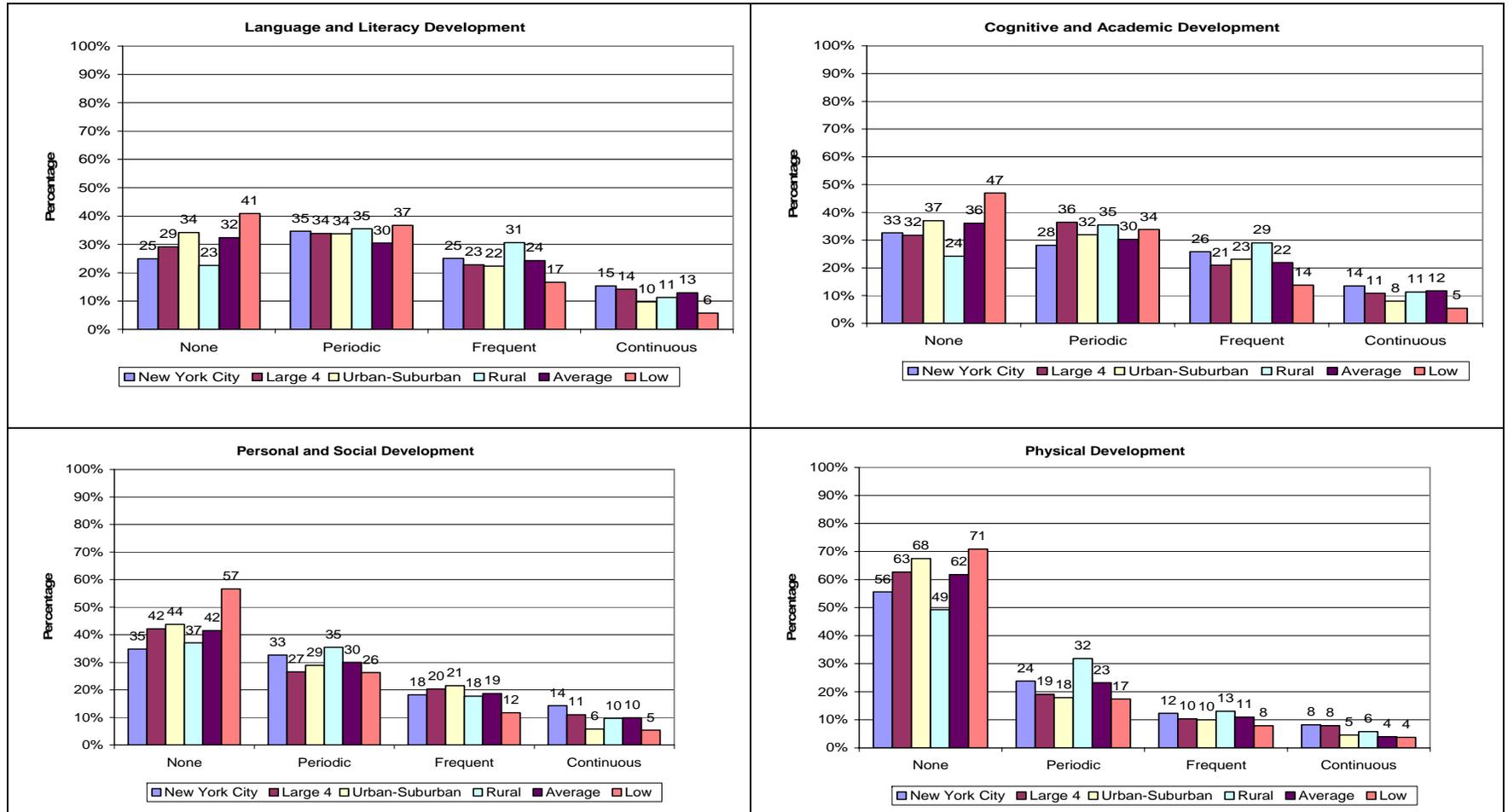
Exhibits 5-39 through **5-46** examine Part A findings according to N/RC category. In general, as students passed from kindergarten to third grade, the degree of need for teacher assistance in the four Part A domains tended to be variable as a function of N/RC category. Students in the Low Need districts proved to be an exception, generally requiring more assistance in the classroom in every Part A domain as they progressed through the grades, as did students from the Large Four Cities and Urban-Suburban High Need districts. Students in New York City, Rural High Need, and Average Need districts tended to show increasingly less need for teacher assistance as they moved through the grades.

**EXHIBIT 5-39
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT KINDERGARTEN STUDENTS, BY N/RC CATEGORY**

| Percentage of Kindergarten Students Requiring Assistance Beyond That Typically Provided in General Education Classrooms in Various Developmental Domains by N/RC Category | | | | |
|--|---|-------------------------------------|-------------------------------------|---------------------------------------|
| Need/Resource Capacity Category | Kindergarten Language and Literacy Development | | | |
| | No Assistance Required | Requires Periodic Assistance | Requires Frequent Assistance | Requires Continuous Assistance |
| New York City (n=554) | 25% | 35% | 25% | 15% |
| Large 4 (n=127) | 29% | 34% | 23% | 14% |
| Urban-Suburban (n=237) | 34% | 34% | 22% | 10% |
| Rural (n=62) | 23% | 35% | 31% | 11% |
| Average (n=535) | 32% | 30% | 24% | 13% |
| Low (n=313) | 41% | 37% | 17% | 6% |
| Kindergarten Personal and Social Development | | | | |
| New York City (n=554) | 35% | 33% | 18% | 14% |
| Large 4 (n=128) | 42% | 27% | 20% | 11% |
| Urban-Suburban (n=242) | 44% | 29% | 21% | 6% |
| Rural (n=62) | 37% | 35% | 18% | 10% |
| Average (n=537) | 42% | 30% | 19% | 10% |
| Low (n=316) | 57% | 26% | 12% | 5% |
| Kindergarten Cognitive and Academic Development | | | | |
| New York City (n=555) | 33% | 28% | 26% | 14% |
| Large 4 (n=129) | 32% | 36% | 21% | 11% |
| Urban-Suburban (n=238) | 37% | 32% | 23% | 8% |
| Rural (n=62) | 24% | 35% | 29% | 11% |
| Average (n=529) | 36% | 30% | 22% | 12% |
| Low (n=313) | 47% | 34% | 14% | 5% |
| Kindergarten Physical Development | | | | |
| New York City (n=550) | 56% | 24% | 12% | 8% |
| Large 4 (n=126) | 63% | 19% | 10% | 8% |
| Urban-Suburban (n=240) | 68% | 18% | 10% | 5% |
| Rural (n=69) | 49% | 32% | 13% | 6% |
| Average (n=257) | 62% | 23% | 11% | 4% |
| Low (n=316) | 71% | 17% | 8% | 4% |

Source: New York school district data, 2001 through 2006.

EXHIBIT 5-40
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY PRESCHOOL COHORT KINDERGARTEN STUDENTS, BY N/R/C CATEGORY



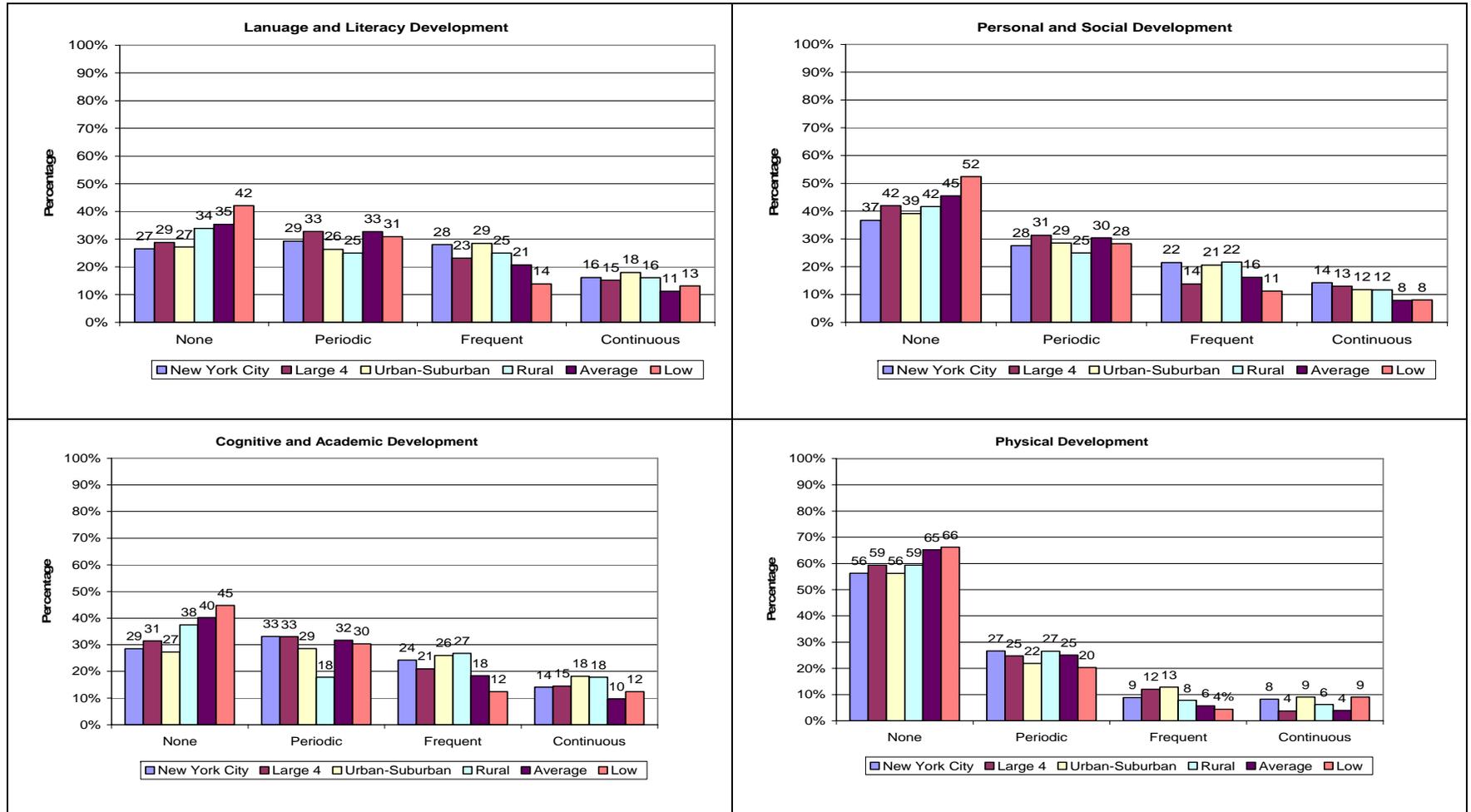
Source: New York school district data, 2001 through 2006.

**EXHIBIT 5-41
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT FIRST GRADE STUDENTS, BY N/RC CATEGORY**

| Percentage of First Grade Students Requiring Assistance Beyond That Typically Provided in General Education Classrooms in Various Developmental Domains by N/RC Category | | | | |
|---|--|-------------------------------------|-------------------------------------|---------------------------------------|
| Part A N/RC | First Grade Language and Literacy Development | | | |
| | No Assistance Required | Requires Periodic Assistance | Requires Frequent Assistance | Requires Continuous Assistance |
| New York City (n=328) | 27% | 29% | 28% | 16% |
| Large 4 (n=125) | 29% | 33% | 23% | 15% |
| Urban-Suburban (n=228) | 27% | 26% | 29% | 18% |
| Rural (n=56) | 34% | 25% | 25% | 16% |
| Average (n=526) | 35% | 33% | 21% | 11% |
| Low (n=304) | 42% | 31% | 14% | 13% |
| First Grade Personal and Social Development | | | | |
| New York City (n=330) | 37% | 28% | 22% | 14% |
| Large 4 (n=131) | 42% | 31% | 14% | 13% |
| Urban-Suburban (n=238) | 39% | 29% | 21% | 12% |
| Rural (n=60) | 42% | 25% | 22% | 12% |
| Average (n=543) | 45% | 30% | 16% | 8% |
| Low (n=304) | 52% | 28% | 11% | 8% |
| First Grade Cognitive and Academic Development | | | | |
| New York City (n=326) | 29% | 33% | 24% | 14% |
| Large 4 (n=124) | 31% | 33% | 21% | 15% |
| Urban-Suburban (n=231) | 27% | 29% | 26% | 18% |
| Rural (n=56) | 38% | 18% | 27% | 18% |
| Average (n=517) | 40% | 32% | 18% | 10% |
| Low (n=306) | 45% | 30% | 12% | 12% |
| First Grade Physical Development | | | | |
| New York City (n=327) | 56% | 27% | 9% | 8% |
| Large 4 (n=133) | 59% | 25% | 12% | 4% |
| Urban-Suburban (n=242) | 56% | 22% | 13% | 9% |
| Rural (n=64) | 59% | 27% | 8% | 6% |
| Average (n=555) | 65% | 25% | 6% | 4% |
| Low (n=320) | 66% | 20% | 4% | 9% |

Source: MGT of America, Inc., New York Preschool Special Education Study database, 2001 through 2006.

EXHIBIT 5-42
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY PRESCHOOL COHORT FIRST GRADE STUDENTS, BY N/R/C CATEGORY



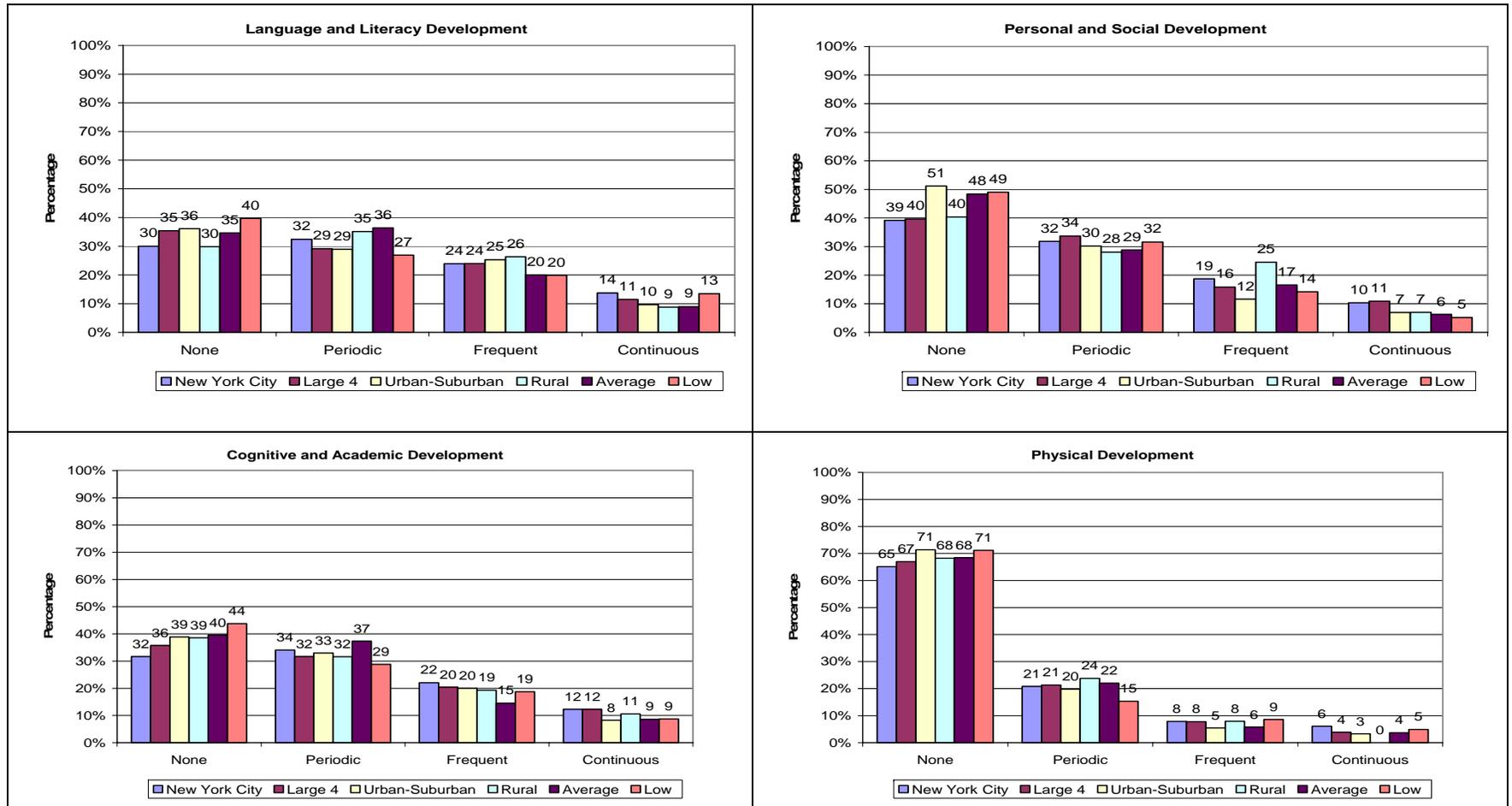
Source: New York school district data, 2001 through 2006.

**EXHIBIT 5-43
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT SECOND GRADE STUDENTS, BY N/RC CATEGORY**

| Second Grade Students Requiring Assistance Beyond That Typically Provided in General Education Classrooms in Various Developmental Domains by N/RC Category | | | | |
|--|---|-------------------------------------|-------------------------------------|---------------------------------------|
| Need/Resource Capacity Category | Second Grade Language and Literacy Development | | | |
| | No Assistance Required | Requires Periodic Assistance | Requires Frequent Assistance | Requires Continuous Assistance |
| New York City (n=460) | 30% | 32% | 24% | 14% |
| Large 4 (n=96) | 35% | 29% | 24% | 11% |
| Urban-Suburban (n=83) | 36% | 29% | 25% | 10% |
| Rural (n=57) | 30% | 35% | 26% | 9% |
| Average (n=404) | 35% | 36% | 20% | 9% |
| Low (n=156) | 40% | 27% | 20% | 13% |
| Second Grade Personal and Social Development | | | | |
| New York City (n=465) | 39% | 32% | 19% | 10% |
| Large 4 (n=101) | 40% | 34% | 16% | 11% |
| Urban-Suburban (n=86) | 51% | 30% | 12% | 7% |
| Rural (n=57) | 40% | 28% | 25% | 7% |
| Average (n=416) | 48% | 29% | 17% | 6% |
| Low (n=155) | 49% | 32% | 14% | 5% |
| Second Grade Cognitive and Academic Development | | | | |
| New York City (n=458) | 32% | 34% | 22% | 12% |
| Large 4 (n=98) | 36% | 32% | 20% | 12% |
| Urban-Suburban (n=85) | 39% | 33% | 20% | 8% |
| Rural (n=57) | 39% | 32% | 19% | 11% |
| Average (n=405) | 40% | 37% | 15% | 9% |
| Low (n=160) | 44% | 29% | 19% | 9% |
| Second Grade Physical Development | | | | |
| New York City (n=456) | 65% | 21% | 8% | 6% |
| Large 4 (n=103) | 67% | 21% | 8% | 4% |
| Urban-Suburban (n=91) | 71% | 20% | 5% | 3% |
| Rural (n=63) | 68% | 24% | 8% | 0% |
| Average (n=431) | 68% | 22% | 6% | 4% |
| Low (n=163) | 71% | 15% | 9% | 5% |

Source: New York school district data, 2001 through 2006.

EXHIBIT 5-44
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY PRESCHOOL COHORT SECOND GRADE STUDENTS, BY N/R/C CATEGORY



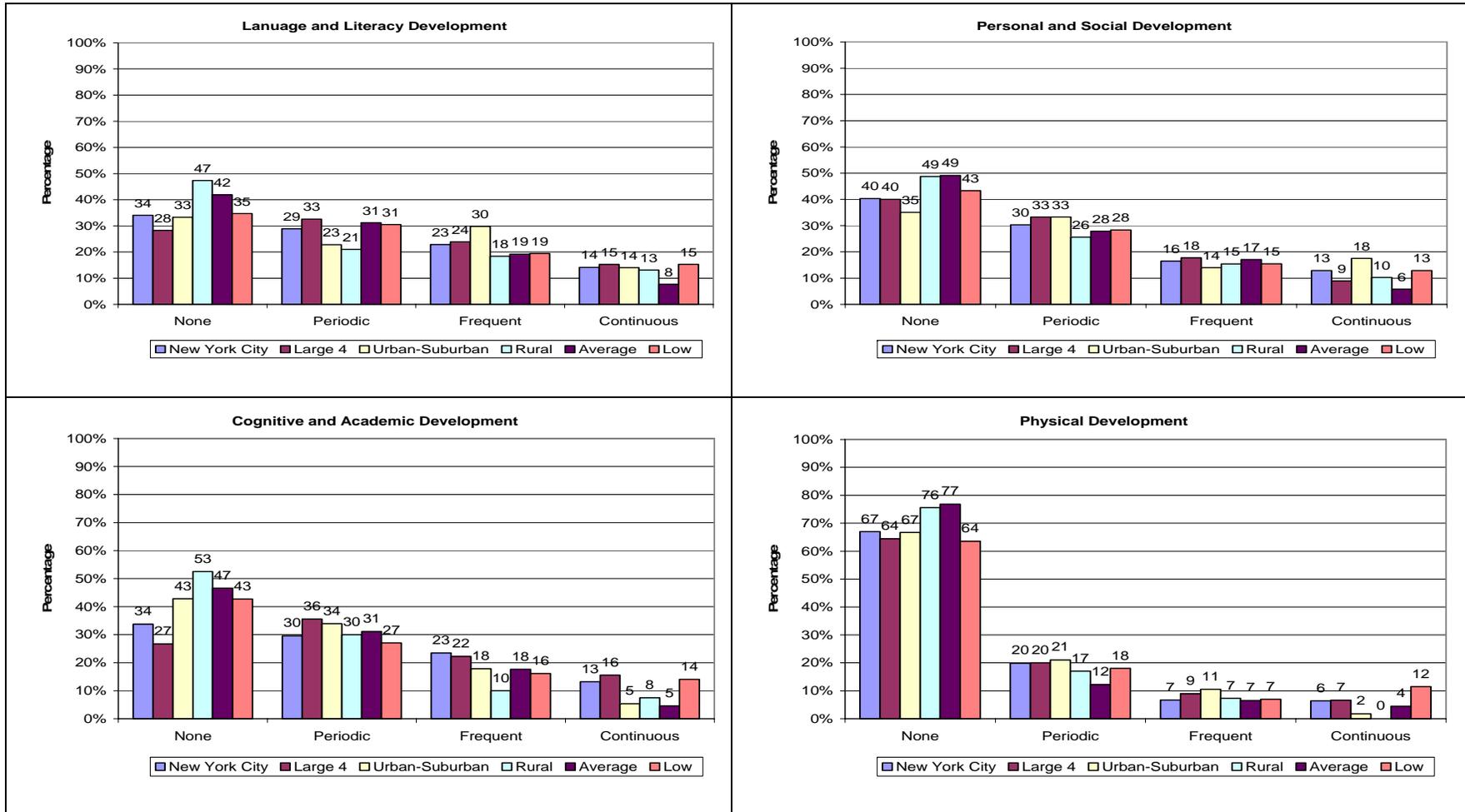
Source: New York school district data, 2001 through 2006.

**EXHIBIT 5-45
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY
PRESCHOOL COHORT THIRD GRADE STUDENTS, BY N/RC CATEGORY**

| Percentage of Third Grade Students Requiring Assistance Beyond That Typically Provided in General Education Classrooms in Various Developmental Domains by N/RC Category | | | | |
|---|--|-------------------------------------|-------------------------------------|---------------------------------------|
| Need/Resource Capacity Category | Third Grade Language and Literacy Development | | | |
| | No Assistance Required | Requires Periodic Assistance | Requires Frequent Assistance | Requires Continuous Assistance |
| New York City (n=311) | 34% | 29% | 23% | 14% |
| Large 4 (n=46) | 28% | 33% | 24% | 15% |
| Urban-Suburban (n=57) | 33% | 23% | 30% | 14% |
| Rural (n=38) | 47% | 21% | 18% | 13% |
| Average (n=234) | 42% | 31% | 19% | 8% |
| Low (n=190) | 35% | 31% | 19% | 15% |
| Third Grade Personal and Social Development | | | | |
| New York City (n=310) | 40% | 30% | 16% | 13% |
| Large 4 (n=45) | 40% | 33% | 18% | 9% |
| Urban-Suburban (n=57) | 35% | 33% | 14% | 18% |
| Rural (n=39) | 49% | 26% | 15% | 10% |
| Average (n=240) | 49% | 28% | 17% | 6% |
| Low (n=194) | 43% | 28% | 15% | 13% |
| Third Grade Cognitive and Academic Development | | | | |
| New York City (n=311) | 34% | 30% | 23% | 13% |
| Large 4 (n=45) | 27% | 36% | 22% | 16% |
| Urban-Suburban (n=56) | 43% | 34% | 18% | 5% |
| Rural (n=40) | 53% | 30% | 10% | 8% |
| Average (n=238) | 47% | 31% | 18% | 5% |
| Low (n=192) | 43% | 27% | 16% | 14% |
| Third Grade Physical Development | | | | |
| New York City (n=312) | 67% | 20% | 7% | 6% |
| Large 4 (n=45) | 64% | 20% | 9% | 7% |
| Urban-Suburban (n=57) | 67% | 21% | 11% | 2% |
| Rural (n=41) | 76% | 17% | 7% | 0% |
| Average (n=246) | 77% | 12% | 7% | 4% |
| Low (n=200) | 64% | 18% | 7% | 12% |

Source: New York school district data, 2001 through 2006.

EXHIBIT 5-46
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM BY PRESCHOOL COHORT THIRD GRADE BY STUDENTS, BY N/R/C CATEGORY



Source: New York school district data, 2001 through 2006.

5.4.3 Part B: Levels of Socioemotional Adjustment in Four Domains Assessed by the T-CRS

Exhibits 5-47 and **5-48** report T-CRS findings at each grade level, comparing preschool cohort students by PD-7 category with comparison cohort students. These are followed, respectively, by **Exhibits 5-49** and **5-50**, which examine T-CRS findings for preschool cohort students by N/RC.

5.4.3.1 Part B: Levels of Socioemotional Adjustment in Four Domains Assessed by the T-CRS, Comparing Preschool Cohort Students (by PD-7 category, Kindergarten Through Third Grade) and Comparison Cohort Students (First Through Third Grade)

As shown in **Exhibits 5-47** and **5-48**, which examine the preschool cohort by PD-7 category, percentages of students scoring in the 51st to 99th percentile varied in all four domains of development as students progressed from kindergarten to third grade.

- In all four T-CRS domains, students in the preschool cohort who received Related Services Only and Special Class Programs in an Integrated Setting achieved a higher percentage in all four T-CRS domains than did students in the comparison cohort, who received no preschool special education services.
- In the “Task Orientation” domain, the percentage of students scoring in the 51st to 99th percentile who received Related Services Only remained fairly stable from kindergarten on, with a slight decrease from 48 to 45 percent by third grade. For students who had received preschool services in Special Class Programs, percentages improved from kindergarten to first grade (23 percent to 42 percent) but dropped dramatically by third grade—from 43 percent in second grade to 28 percent in third grade. Students previously served in other PD-7 categories demonstrated a marked increase in all four T-CRS domains from kindergarten to third grade in percentages of students who scored in the 51st to 99th percentile, whereas the comparison cohort demonstrated a decline in all four T-CRS domains from first through third grades.
- In the “Behavioral Control” domain, the percentage of students scoring in the 51st to 99th percentile who in preschool had received—Related Services and SEIT and Special Class Programs in an Integrated Setting—increased considerably from kindergarten through third grade. Students previously served during preschool in Related Services Only remained fairly stable from kindergarten on, with a decrease in performance in the first and second grades. Students previously served in Special Class remained fairly stable from kindergarten on, with an increase in performance in the first and second grades. Students in the relatively small SEIT Services Only category exhibited a decline.

- In the “Assertiveness” domain, the percentage of students scoring in the 51st to 99th percentile who received preschool special education services in four of five PD-7 categories—Related Services Only, Related Services and SEIT, Special Class Program in an Integrated Setting, and Special Class Program—and the comparison cohort remained fairly stable from kindergarten through third grade.
- In the “Peer Social Skills” domain, the percentage of students scoring in the 51st to 99th percentile who had received preschool services in three of five PD-7 categories—Related Services Only, Related Services and SEIT, and Special Class Program—remained fairly stable from kindergarten through third grade, whereas percentages of kindergarten students who received preschool services in Special Class Programs in an Integrated Setting improved, and those in SEIT Services Only and the comparison cohort experienced a considerable decline.

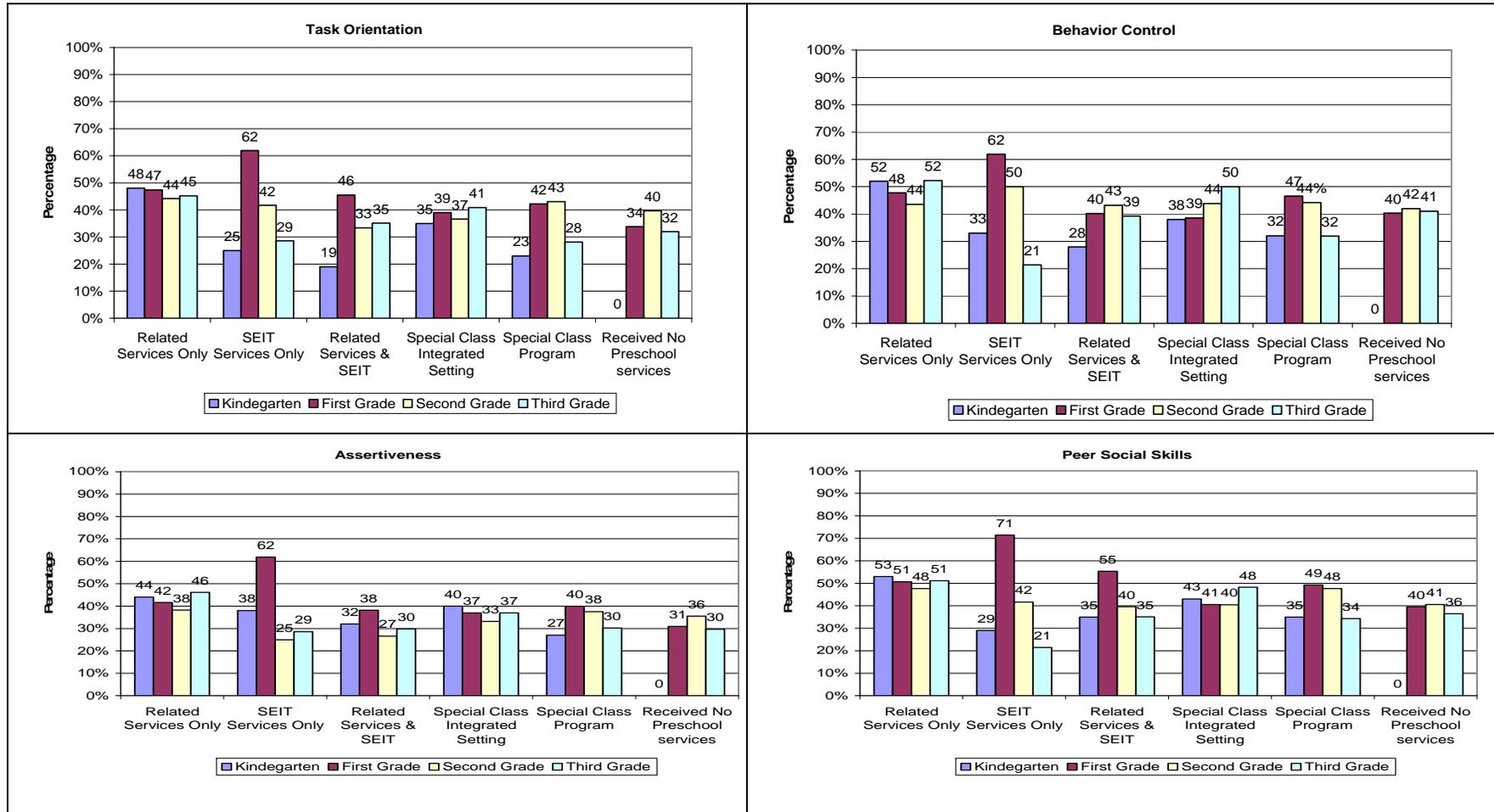
**EXHIBIT 5-47
PERCENTAGE OF STUDENTS IN THE 51ST TO 99TH PERCENTILE ON THE T-CRS
MEASURE OF TASK ORIENTATION FOR STUDENTS, BY PD-7 CATEGORY**

| T-CRS Domain | Grade | Related Services Only | | SEIT Services Only | | Related Services and SEIT | | Special Class Integrated Setting | | Special Class Program | | Received No Preschool Services | |
|--------------------|--------|-----------------------|-----|--------------------|-----|---------------------------|-----|----------------------------------|-----|-----------------------|-----|--------------------------------|-----------|
| | | N | % | N | % | N | % | N | % | N | % | N | % |
| Task Orientation | K | 707 | 48% | 20 | 25% | 126 | 19% | 350 | 35% | 735 | 23% | Ins. Data | Ins. Data |
| | First | 906 | 47% | 21 | 62% | 112 | 46% | 249 | 39% | 493 | 42% | 591 | 34% |
| | Second | 489 | 44% | 12 | 42% | 96 | 33% | 235 | 37% | 527 | 43% | 948 | 40% |
| | Third | 314 | 45% | 14 | 29% | 57 | 35% | 147 | 41% | 398 | 28% | 192 | 32% |
| Behavior Control | K | 707 | 52% | 21 | 33% | 127 | 28% | 350 | 38% | 736 | 32% | Ins. Data | Ins. Data |
| | First | 906 | 48% | 21 | 62% | 112 | 40% | 249 | 39% | 492 | 47% | 590 | 40% |
| | Second | 489 | 44% | 12 | 50% | 95 | 43% | 235 | 44% | 525 | 44% | 946 | 42% |
| | Third | 314 | 52% | 14 | 21% | 56 | 39% | 146 | 50% | 398 | 32% | 247 | 41% |
| Assertiveness | K | 707 | 44% | 21 | 38% | 127 | 32% | 351 | 40% | 737 | 27% | Ins. Data | Ins. Data |
| | First | 904 | 42% | 21 | 62% | 110 | 38% | 249 | 37% | 491 | 40% | 591 | 31% |
| | Second | 489 | 38% | 12 | 25% | 94 | 27% | 235 | 33% | 525 | 38% | 946 | 36% |
| | Third | 312 | 46% | 14 | 29% | 57 | 30% | 146 | 37% | 397 | 30% | 177 | 30% |
| Peer Social Skills | K | 707 | 53% | 21 | 29% | 127 | 35% | 351 | 43% | 737 | 35% | Ins. Data | Ins. Data |
| | First | 902 | 51% | 21 | 71% | 112 | 55% | 249 | 41% | 491 | 49% | 587 | 40% |
| | Second | 489 | 48% | 12 | 42% | 96 | 40% | 235 | 40% | 527 | 48% | 946 | 41% |
| | Third | 313 | 51% | 14 | 21% | 57 | 35% | 145 | 48% | 396 | 34% | 218 | 36% |

Source: Teacher-Child Rating Scale, 2002 through 2006.

Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting are collapsed into one category, “Special Class Program in Integrated Setting.” “Half-Day Special Class” and “Full-Day Special Class” in which special education services are provided in a separate setting are collapsed into the category “Special Class Program.”

EXHIBIT 5-48
PERCENTAGE OF STUDENTS IN THE 51ST TO 99TH PERCENTILE ON THE T-CRS MEASURE OF TASK ORIENTATION FOR STUDENTS, BY PD-7 CATEGORY



Source: Teacher-Child Rating Scale, 2002 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n's that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting" are collapsed into one category, "Special Class Program in Integrated Setting." "Half-Day Special Class" and "Full-Day Special Class" in which special education services are provided in a separate setting are collapsed into the category "Special Class Program."

5.4.3.2 Part B: Levels of Socioemotional Adjustment in Four Domains Assessed by the T-CRS for Preschool Cohort Students, by N/RC Category

As shown in **Exhibits 5-49** and **5-50**, which present data on preschool cohort students by N/RC category, percentages of students scoring in the 51st to 99th percentile varied in all four domains of development as students progressed from kindergarten to third grade.

- In the “Task Orientation” domain, all N/RC categories remained stable in percentages of student scoring in the 51st to 99th percentile from kindergarten through third grade.
- In the “Behavioral Control” domain, percentages of students scoring in the 51st to 99th in the Urban-Suburban-High and Rural-High N/RC categories increased substantially from kindergarten through third grade.
- In the “Assertiveness” domain, the percentage of students scoring in the 51st to 99th percentile increased substantially or remained stable in all N/RC categories from kindergarten through third grade.
- In the “Peer Social Skills” domain, percentages of students scoring in the 51st to 99th percentile improved in the Large Four Cities, Urban-Suburban-High, Rural-High, and Average N/RC categories but declined in the New York City and Low N/RC categories.

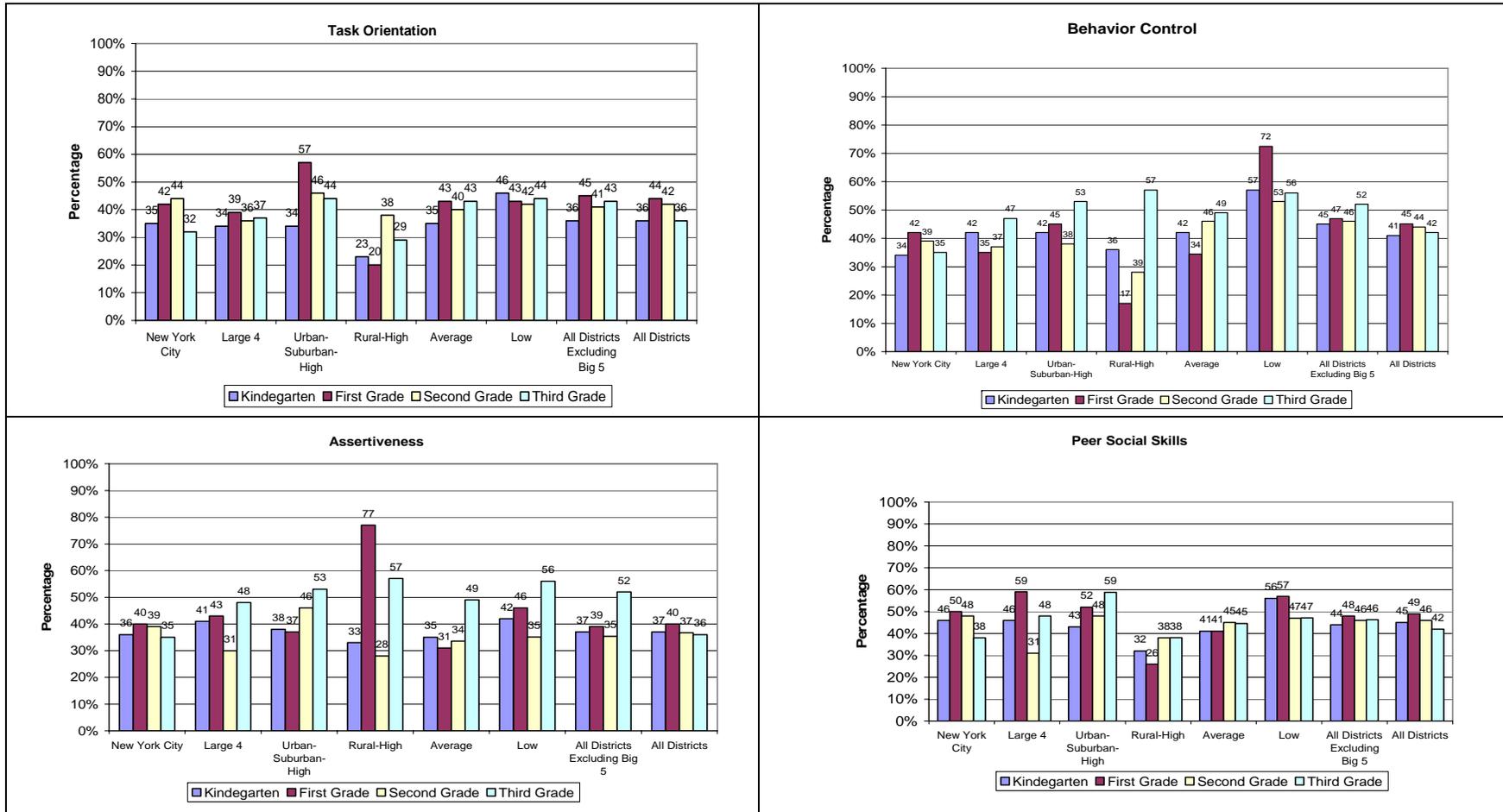
EXHIBIT 5-49
PRESCHOOL COHORT STUDENTS IN THE 51ST TO 99TH PERCENTILE ON THE T-CRS MEASURE OF TASK ORIENTATION, BEHAVIOR CONTROL, ASSERTIVENESS, AND PEER SOCIAL SKILLS BY N/RC CATEGORY, KINDERGARTEN THROUGH THIRD GRADE

| Grade | T-CRS Domain | New York City | | Large 4 | | Urban-Suburban-High | | Rural-High | | Average | | Low | | All Districts Excluding Big 5 | | All Districts | |
|--------------|--------------------|---------------|-----|---------|-----|---------------------|-----|------------|-----|---------|-----|-----|-----|-------------------------------|-----|---------------|-----|
| | | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % |
| Kindergarten | Task Orientation | 999 | 35% | 163 | 34% | 295 | 34% | 79 | 23% | 623 | 35% | 297 | 46% | 1294 | 36% | 2456 | 36% |
| | Behavior Control | 999 | 34% | 163 | 42% | 294 | 42% | 79 | 36% | 621 | 42% | 297 | 57% | 1291 | 45% | 2453 | 41% |
| | Assertiveness | 1000 | 36% | 163 | 41% | 294 | 38% | 79 | 33% | 622 | 35% | 296 | 42% | 1291 | 37% | 2454 | 37% |
| | Peer Social Skills | 1000 | 46% | 162 | 46% | 294 | 43% | 79 | 32% | 622 | 41% | 297 | 56% | 1292 | 44% | 2454 | 45% |
| First Grade | Task Orientation | 412 | 42% | 83 | 39% | 275 | 57% | 65 | 20% | 549 | 43% | 370 | 43% | 1259 | 45% | 1754 | 44% |
| | Behavior Control | 411 | 42% | 83 | 35% | 275 | 45% | 65 | 17% | 549 | 34% | 370 | 72% | 1259 | 47% | 1753 | 45% |
| | Assertiveness | 409 | 40% | 83 | 43% | 275 | 37% | 65 | 77% | 548 | 31% | 368 | 46% | 1256 | 39% | 1748 | 40% |
| | Peer Social Skills | 411 | 50% | 82 | 59% | 274 | 52% | 65 | 26% | 547 | 41% | 369 | 57% | 1255 | 48% | 1748 | 49% |
| Second Grade | Task Orientation | 621 | 44% | 67 | 36% | 90 | 46% | 32 | 38% | 375 | 40% | 186 | 42% | 683 | 41% | 1371 | 42% |
| | Behavior Control | 618 | 42% | 67 | 37% | 90 | 38% | 32 | 41% | 375 | 46% | 186 | 53% | 683 | 46% | 1368 | 44% |
| | Assertiveness | 618 | 39% | 67 | 30% | 90 | 46% | 32 | 28% | 375 | 34% | 185 | 35% | 682 | 35% | 1367 | 37% |
| | Peer Social Skills | 621 | 48% | 67 | 31% | 90 | 48% | 32 | 38% | 375 | 45% | 186 | 47% | 683 | 46% | 1371 | 46% |
| Third Grade | Task Orientation | 517 | 32% | 43 | 37% | 36 | 44% | 21 | 29% | 202 | 43% | 104 | 44% | 363 | 43% | 923 | 36% |
| | Behavior Control | 516 | 35% | 43 | 47% | 36 | 53% | 21 | 57% | 201 | 49% | 104 | 56% | 362 | 52% | 921 | 42% |
| | Assertiveness | 514 | 35% | 42 | 48% | 36 | 53% | 21 | 57% | 202 | 49% | 104 | 56% | 363 | 52% | 919 | 36% |
| | Peer Social Skills | 515 | 38% | 42 | 48% | 34 | 59% | 21 | 38% | 202 | 45% | 104 | 47% | 361 | 46% | 918 | 42% |

Source: Teacher-Child Rating Scale, 2002 through 2006.

EXHIBIT 5-50

STUDENTS IN THE 51ST TO 99TH PERCENTILE ON THE T-CRS MEASURE OF TASK ORIENTATION, BEHAVIOR CONTROL, ASSERTIVENESS, AND PEER SOCIAL SKILLS BY N/RC CATEGORY, KINDERGARTEN THROUGH THIRD GRADE



Source: Teacher-Child Rating Scale, 2002 through 2006.

5.4.4 Part C: Levels of Developmental Proficiency in Three Domains of the WSS

Exhibits 5-51 and **5-52** report WSS findings for kindergarten through third grade, comparing preschool cohort students by PD-7 category with comparison cohort students. These are followed, respectively, by **Exhibits 5-53** and **5-54**, which examine WSS findings for preschool cohort students by N/RC category.

5.4.4.1 Part C: Levels of Developmental Proficiency in Three Domains of the WSS, Comparing Preschool Cohort (by PD-7 Category) and Comparison Cohort Students

Exhibits 5-51 and **5-52** report WSS findings by PD-7 category, kindergarten through third grade, for preschool cohort students and for comparison cohort students. Findings are reported below as teacher observations of student development “As Expected” by grade level and cohort for each of the three WSS domains of development: “Personal and Social Development,” “Language and Literacy Development,” and “Mathematical Thinking.” As shown:

“Personal and Social Development”

- Percentages of preschool cohort students whose development in the “Personal and Social Development” domain was rated by teachers to be As Expected declined moderately from kindergarten through third grade in all PD-7 categories but one (SEIT), as was the case for comparison cohort students, first through third grade.
- At the first grade level, developmental ratings of As Expected in the “Personal and Social Development” domain for preschool cohort students previously served in both Related Services Only and SEIT were moderately higher than ratings for comparison cohort students—and much higher by third grade. Also, by third grade, the percentage of As Expected ratings for students who received Special Class Programs in an Integrated Setting surpassed the percentage of As Expected ratings for the comparison cohort.
- Although the percentage of preschool cohort students rated As Expected in the “Personal and Social Development” domain declined moderately from kindergarten through third grade, the decline was steeper for students in the comparison cohort.
- By third grade, comparison cohort students rated As Expected (79%) in the “Personal and Social Development” domain achieved a higher percentage of ratings than the preschool cohort previously served in only two of five PD-7 categories—SEIT and Related Services (78%) and Special Class (75%).

“Language and Literacy Development”

- In the “Language and Literacy Development” domain, percentages of all preschool cohort students whose development was rated As Expected by teachers declined more steeply from kindergarten through third grade than they did in the “Personal and Social Development” domain, but also declined for comparison cohort students, first through third grade.
- At the first grade level, percentages of As Expected ratings in the “Language and Literacy Development” domain for preschool cohort students previously served in both Related Services Only and SEIT were moderately higher than ratings for the comparison cohort. By third grade the percentages were moderately higher for students previously served in these PD-7 categories and those who received Special Class Programs in an Integrated Setting.
- From first grade through third grade, percentages of As Expected ratings in the “Language and Literacy Development” domain remained somewhat stable for students previously served in three PD-7 categories—Related Services Only, SEIT and Related Services, and Special Class Programs in an Integrated Setting—but declined for students in SEIT and Special Class and for students in the comparison cohort.

“Mathematical Thinking”

- Percentages of As Expected teacher ratings in the “Mathematical Thinking” domain declined moderately from kindergarten through third grade for students who received preschool Related Services Only and Special Class Programs in an Integrated Setting. The percentages declined more steeply for students who received preschool SEIT and Related Services and Special Class, but increased considerably for students who received SEIT services. As Expected percentages declined slightly for comparison cohort students, first through third grade.
- Percentages of As Expected ratings in the Mathematical Thinking domain for preschool cohort students in Related Services Only consistently exceeded percentages for students in the comparison cohort in each grade, first through third.
- In general, percentages of As Expected ratings in the Mathematical Thinking domain remained somewhat stable for students in two PD-7 categories—Related Services Only and Special Class Program in an Integrated Setting—but declined for students in SEIT and Related Services and Special Class, as well as for comparison cohort students.

**EXHIBIT 5-51
PERCENTAGE OF “AS EXPECTED” DEVELOPMENTAL RATINGS FOR THREE
WSS DOMAINS, COMPARING PRESCHOOL COHORT (BY PD-7 CATEGORY) AND
COMPARISON COHORT STUDENTS, KINDERGARTEN THROUGH THIRD GRADE**

| Personal and Social Development | Kindergarten | | First Grade | | Second Grade | | Third Grade | |
|--|--------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|
| | Number of Students | As Expected |
| Related Services Only | 885 | 92% | 779 | 86% | 640 | 85% | 454 | 90% |
| SEIT Services Only | 31 | 81% | 28 | 89% | 17 | 100% | 17 | 88% |
| Related Services and SEIT | 134 | 78% | 134 | 75% | 120 | 83% | 77 | 77% |
| Special Class in an Integrated Setting (SCIS) | 390 | 86% | 329 | 82% | 276 | 79% | 185 | 82% |
| Special Class | 867 | 78% | 709 | 72% | 596 | 82% | 493 | 75% |
| Comparison Cohort | No Data | No Data | 507 | 85% | 1591 | 83% | 746 | 79% |
| Language and Literacy Development | Kindergarten | | First Grade | | Second Grade | | Third Grade | |
| | Number of Students | As Expected |
| Related Services Only (RSO) | 884 | 94% | 779 | 88% | 640 | 83% | 454 | 87% |
| Special Education Itinerant Services Only (SEIT) | 31 | 94% | 28 | 93% | 17 | 94% | 17 | 82% |
| SEIT and Related Services | 134 | 84% | 134 | 77% | 120 | 78% | 77 | 78% |
| Special Class in an Integrated Setting (SCIS) | 389 | 89% | 329 | 82% | 276 | 78% | 185 | 83% |
| Special Class | 865 | 80% | 709 | 75% | 596 | 79% | 493 | 71% |
| Comparison Cohort | No Data | No Data | 506 | 86% | 1590 | 81% | 746 | 80% |
| Math Thinking | Kindergarten | | First Grade | | Second Grade | | Third Grade | |
| | Number of Students | As Expected |
| Related Services Only (RSO) | 887 | 92% | 792 | 90% | 640 | 88% | 454 | 91% |
| Special Education Itinerant Services Only (SEIT) | 31 | 81% | 28 | 86% | 17 | 94% | 17 | 88% |
| SEIT and Related Services | 134 | 82% | 134 | 81% | 120 | 83% | 77 | 74% |
| Special Class in an Integrated Setting (SCIS) | 388 | 86% | 330 | 84% | 276 | 85% | 185 | 83% |
| Special Class | 867 | 72% | 715 | 74% | 596 | 84% | 493 | 69% |
| Comparison Cohort | No Data | No Data | 511 | 87% | 1591 | 86% | 746 | 84% |

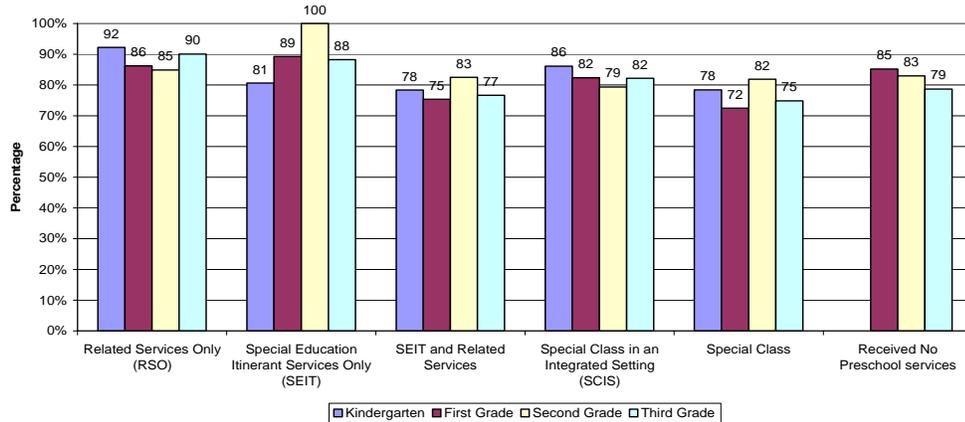
Source: Work Sampling System, 2002 through 2006.

*PD-7 category (The “Residential Facility” preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n’s that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting” are collapsed into one category, “Special Class Program in Integrated Setting.” “Half-Day Special Class” and “Full-Day Special Class” in which special education services are provided in a separate setting are collapsed into the category “Special Class Program.”

EXHIBIT 5-52
PERCENTAGE OF “AS EXPECTED” DEVELOPMENTAL RATINGS FOR
PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON COHORT
STUDENTS, KINDERGARTEN THROUGH THIRD GRADE

Work Sampling System: Personal and Social Development



Work Sampling System: Language and Literacy Development

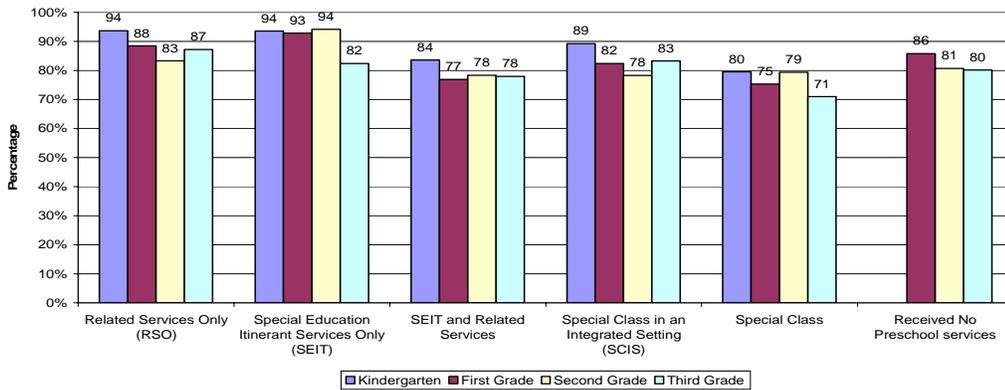
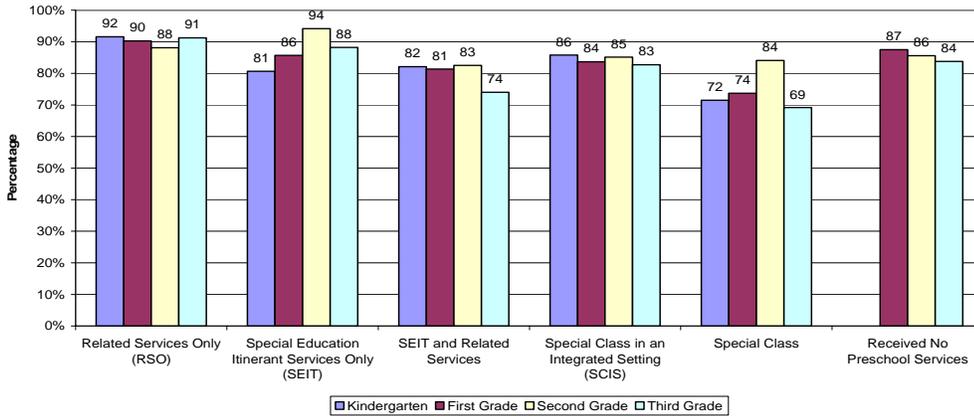


EXHIBIT 5-52 (CONTINUED)
PERCENTAGE OF “AS EXPECTED” DEVELOPMENTAL RATINGS FOR
PRESCHOOL COHORT (BY PD-7 CATEGORY) AND COMPARISON COHORT
STUDENTS, KINDERGARTEN THROUGH THIRD GRADE

Work Sampling System: Mathematical Thinking



Source: Work Sampling System, 2002 through 2006.

*PD-7 category (The “Residential Facility” preschool setting excluded from all charts because no study participants were placed in such a setting.)

Exhibit reports original PD-7 categories in five categories to generate cell n’s that would be of sufficient size to detect meaningful trends. In the five-category scheme, the first three report original PD-7 categories remain the same. Half-Day Special Class in Integrated Setting and Full-Day Special Class in Integrated Setting” are collapsed into one category, “Special Class Program in Integrated Setting.” “Half-Day Special Class” and “Full-Day Special Class” in which special education services are provided in a separate setting are collapsed into the category “Special Class Program.”

5.4.4.2 Part C: Levels of Developmental Proficiency in Three Domains of the WSS, Comparing Preschool Cohort (by PD-7 Category) and Comparison Cohort Students by N/RC

Exhibits 5-53 and **5-54** report WSS findings, kindergarten through third grade, by N/RC category for students who received preschool special education services and who remained classified in kindergarten through third grade and compares their developmental ratings with those of preschool cohort students who were declassified during the same period. Findings are reported below by grade level and cohort for each of the three WSS domains of development: “Personal and Social Development,” “Language and Literacy Development” and “Mathematical Thinking.” Findings are reported as teacher observations of student development As Expected in each domain.

- Percentages of preschool cohort students whose development in the “Personal and Social Development” domain was rated by teachers As Expected declined from kindergarten through third grade in all N/RC categories but two—Rural-High Need and Average Need.
- The decline in As Expected ratings in the “Personal and Social Development” domain from kindergarten through third grade was steepest in the Urban-Suburban-High Need districts, from 88 to 80 percent.
- In general, As Expected ratings in the “Personal and Social Development” domain were lowest for students in New York City and highest for students in the Rural-High Need districts.
- As Expected ratings in the “Personal and Social Development” domain for New York City and Large Four Cities students tended to be lower than ratings for students in all other N/RC categories combined.
- The percentage of preschool cohort students whose development in the “Language and Literacy Development” domain was rated by teachers As Expected declined from kindergarten through third grade in all N/RC categories but two—Rural-High Need and Average Need.
- The decline in As Expected ratings in the “Language and Literacy Development” domain from kindergarten through third grade was steeper in the Large Four Cities districts, from 91 to 61 percent.
- In general, As Expected ratings in the “Language and Literacy Development” domain were lowest from kindergarten through third grade for students in New York City and highest for students in the Rural-High Need districts.
- As Expected ratings in the “Language and Literacy Development” domain for New York City and Large Four Cities districts’ students tended to be lower than ratings for students in all other N/RC categories combined.

- The percentage of preschool cohort students whose development in the Mathematical Thinking domain was rated by teachers As Expected declined from kindergarten through third grade in three—New York City, Rural-High Need, and Average Need.
- The decline in As Expected ratings in the Mathematical Thinking domain from kindergarten through third grade was steepest in the Large Four Cities, from 89 to 74 percent.
- In general, As Expected ratings were lowest from kindergarten through third grade for students in New York City and highest for students in the Low Need districts.
- As Expected ratings for New York City and Large Four Cities students tended to be lower than ratings for students in all other N/RC categories, combined.

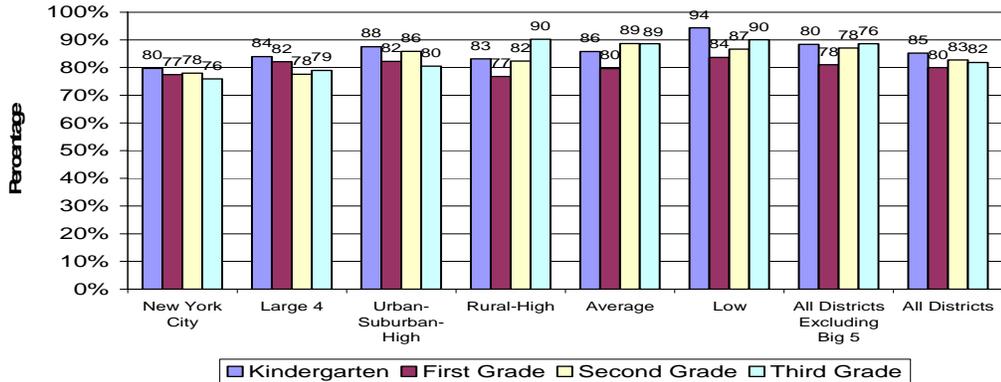
EXHIBIT 5-53
PERCENTAGE OF "AS EXPECTED" DEVELOPMENTAL RATINGS IN THREE WSS DOMAINS FOR PRESCHOOL COHORT STUDENTS, KINDERGARTEN THROUGH THIRD GRADE, BY N/RC CATEGORY

| Personal and Social Development "As Expected" | New York City | | Large 4 | | Urban-Suburban-High | | Rural-High | | Average | | Low | | All Districts Excluding Big 5 | | All Districts | |
|---|---------------|-----|---------|-----|---------------------|-----|------------|----|---------|-----|-----|-----|-------------------------------|------|---------------|------|
| | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N |
| Kindergarten | 80% | 809 | 84% | 131 | 88% | 297 | 83% | 83 | 86% | 668 | 94% | 404 | 88% | 1452 | 85% | 2392 |
| First Grade | 77% | 613 | 82% | 95 | 82% | 281 | 77% | 86 | 80% | 586 | 84% | 318 | 81% | 1271 | 80% | 1979 |
| Second Grade | 78% | 654 | 78% | 116 | 86% | 191 | 82% | 85 | 89% | 449 | 87% | 150 | 87% | 875 | 83% | 1645 |
| Third Grade | 76% | 610 | 79% | 57 | 80% | 41 | 90% | 51 | 89% | 290 | 90% | 171 | 89% | 553 | 82% | 1220 |
| Language and Literacy Development | New York City | | Large 4 | | Urban-Suburban-High | | Rural-High | | Average | | Low | | All Districts Excluding Big 5 | | All Districts | |
| | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N |
| Kindergarten | 81% | 808 | 91% | 131 | 91% | 297 | 84% | 83 | 88% | 666 | 95% | 403 | 90% | 1449 | 87% | 2388 |
| First Grade | 78% | 613 | 80% | 95 | 84% | 281 | 73% | 86 | 83% | 586 | 89% | 318 | 84% | 1271 | 82% | 1979 |
| Second Grade | 78% | 654 | 76% | 116 | 84% | 191 | 62% | 85 | 87% | 449 | 85% | 150 | 83% | 875 | 81% | 1645 |
| Third Grade | 74% | 610 | 61% | 57 | 80% | 41 | 94% | 51 | 88% | 290 | 87% | 171 | 87% | 553 | 79% | 1220 |
| Mathematical Thinking | New York City | | Large 4 | | Urban-Suburban-High | | Rural-High | | Average | | Low | | All Districts Excluding Big 5 | | All Districts | |
| | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N |
| Kindergarten | 72% | 812 | 89% | 131 | 88% | 296 | 82% | 82 | 85% | 668 | 93% | 404 | 88% | 1450 | 83% | 2393 |
| First Grade | 78% | 617 | 82% | 96 | 82% | 282 | 86% | 86 | 82% | 597 | 91% | 321 | 85% | 1286 | 83% | 1999 |
| Second Grade | 82% | 654 | 83% | 191 | 86% | 116 | 82% | 85 | 91% | 449 | 91% | 150 | 89% | 800 | 86% | 1645 |
| Third Grade | 72% | 610 | 74% | 57 | 85% | 41 | 84% | 51 | 89% | 290 | 91% | 171 | 89% | 553 | 80% | 1220 |

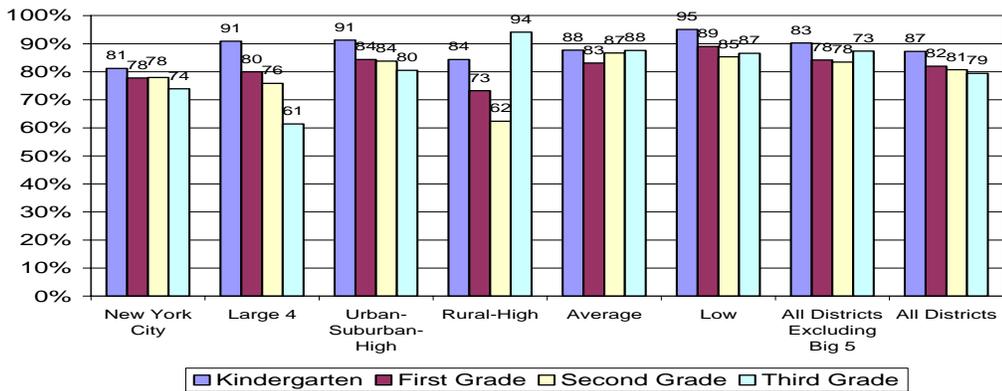
Source: Work Sampling System, 2002 through 2006.

EXHIBIT 5-54
PERCENTAGE OF “AS EXPECTED” DEVELOPMENTAL RATINGS IN THREE WSS
DOMAINS FOR PRESCHOOL COHORT STUDENTS, KINDERGARTEN THROUGH
THIRD GRADE, BY N/RC CATEGORY

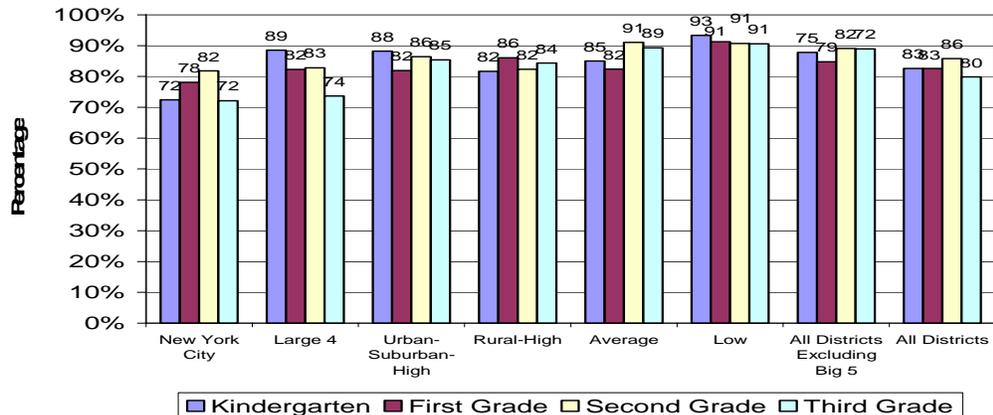
Work Sampling System: Personal and Social Development



Work Sampling System: Language and Literacy Development



Work Sampling System: Mathematical Thinking



Source: Work Sampling System, 2002 through 2006.

5.5 Part A, T-CRS, and WSS Outcomes for Classified and Declassified Preschool Cohort Students, Kindergarten Through Third Grade

Exhibits 5-55 through **5-60** present tables and graphs comparing the performance outcomes of children who received special education services in preschool and continued to receive special education in kindergarten through third grade to those of children who received preschool special education and who were declassified and not reclassified. (Students who were educated entirely in a separate setting in each grade were excluded from the analysis.) Three outcome measures are examined: Part A, the T-CRS, and the WSS. The exhibits and findings that follow are reported in three sections, one for each measure.

5.5.1 Comparing Part A Outcomes Through Third Grade for Preschool Cohort Students Who Were Classified Versus Declassified upon Transition from Preschool to Kindergarten

Exhibits 5-55 and **5-56** report four levels of teacher assistance in the kindergarten through third grade general education classroom for two categories of preschool cohort student: Students who continued to receive special education services (classified) and students who no longer required school-age services (declassified). In the table rows, Assistance Required in the General Education Classroom is reported for classified and declassified students in each grade, kindergarten through third grade, for each of the four Part A domains: “Language and Literacy Development,” “Personal and Social Development,” “Cognitive and Academic Development,” and “Physical Development.” The exhibits support the following observations:

- For each of the four Part A domains, students who were declassified at some point from kindergarten to third grade tended to require significantly less assistance from teachers in the general education classroom than their peers who continued to receive special education services—although the gap between classified and declassified students needing teacher assistance narrowed as students moved through the grades.
- In each Part A domain, the need for teacher assistance among students who remained classified from kindergarten through third grade tended to decrease significantly (e.g., in the “Language and Literacy Development” domain for students receiving No Assistance, by more than half—from 21% to 32%) as students progressed through the grades. Their declassified peers tended to require progressively more assistance as they moved from kindergarten through third grade.
- The percentage of declassified students requiring No Assistance in the general education classroom declined as they moved through the grades and was accompanied by a shift to the Frequent Assistance and Continuous Assistance categories for the “Language and Literacy Development” and “Physical Development” categories. The percentage of declassified students requiring Continuous Assistance increased in all four Part A domains as students passed from kindergarten through third grade.

**EXHIBIT 5-55
ADDITIONAL ASSISTANCE REQUIRED IN THE GENERAL EDUCATION
CLASSROOM BY STUDENTS WHO WERE CLASSIFIED VERSUS DECLASSIFIED
UPON TRANSITION TO KINDERGARTEN**

| Number of Classified and Declassified Kindergarten Students in Each Developmental Domain | | Assistance Required in the General Education Classroom Beyond That Typically Provided to All Students | | | |
|--|----------------------|---|----------|----------|------------|
| | | None | Periodic | Frequent | Continuous |
| Language and Literacy Development | Classified (n=997) | 21% | 35% | 28% | 16% |
| | Declassified (n=557) | 49% | 32% | 14% | 5% |
| Personal and Social Development | Classified (n=1,004) | 31% | 33% | 22% | 14% |
| | Declassified (n=558) | 58% | 27% | 12% | 3% |
| Cognitive and Academic Development | Classified (n=993) | 27% | 32% | 26% | 15% |
| | Declassified (n=558) | 52% | 29% | 14% | 5% |
| Physical Development | Classified (n=1,015) | 52% | 25% | 15% | 8% |
| | Declassified (n=577) | 78% | 15% | 6% | 1% |
| Number of Classified and Declassified First Grade Students in Each Developmental Domain | | None | Periodic | Frequent | Continuous |
| Language and Literacy Development | Classified (n=727) | 25% | 32% | 26% | 17% |
| | Declassified (n=648) | 44% | 30% | 17% | 8% |
| Personal and Social Development | Classified (n=755) | 36% | 31% | 21% | 13% |
| | Declassified (n=652) | 57% | 28% | 10% | 5% |
| Cognitive and Academic Development | Classified (n=720) | 27% | 32% | 25% | 16% |
| | Declassified (n=650) | 47% | 33% | 13% | 8% |
| Physical Development | Classified (n=776) | 58% | 25% | 9% | 8% |
| | Declassified (n=653) | 76% | 18% | 3% | 2% |
| Number of Classified and Declassified Second Grade Students in Each Developmental Domain | | None | Periodic | Frequent | Continuous |
| Language and Literacy Development | Classified (n=719) | 25% | 35% | 25% | 15% |
| | Declassified (n=533) | 46% | 29% | 18% | 7% |
| Personal and Social Development | Classified (n=735) | 35% | 34% | 21% | 11% |
| | Declassified (n=541) | 57% | 26% | 12% | 4% |
| Cognitive and Academic Development | Classified (n=723) | 28% | 35% | 22% | 14% |
| | Declassified (n=536) | 48% | 32% | 14% | 5% |
| Physical Development | Classified (n=759) | 60% | 24% | 9% | 7% |
| | Declassified (n=544) | 78% | 16% | 5% | 1% |
| Number of Classified and Declassified Third Grade Students in Each Developmental Domain | | None | Periodic | Frequent | Continuous |
| Language and Literacy Development | Classified (n=528) | 32% | 30% | 23% | 15% |
| | Declassified (n=345) | 44% | 30% | 18% | 8% |
| Personal and Social Development | Classified (n=535) | 39% | 30% | 19% | 13% |
| | Declassified (n=346) | 50% | 29% | 13% | 8% |
| Cognitive and Academic Development | Classified (n=533) | 34% | 30% | 24% | 12% |
| | Declassified (n=346) | 49% | 30% | 12% | 8% |
| Physical Development | Classified (n=545) | 67% | 18% | 9% | 6% |
| | Declassified (n=353) | 73% | 16% | 5% | 6% |

Source: New York school district data, 2001 through 2006.

Exhibit 5-56 presents **Exhibit 5-55** table information in bar chart format to enable a visual comparison of the four categories of assistance required in the general education classroom in the four Part A domains for both classified and declassified students. In this exhibit, the graphs in the left-hand columns on pages 5-93 and 5-94 represent assistance required by students who continued to receive school-age special education services in kindergarten through third grade in each of the four Part A domains. The graphs on the right side of each page report findings for declassified students in each domain to enable a comparison at each level of assistance—No Assistance Required through Continuous Assistance Required—between these students and classified

students. The first graph on the left side of page 5-93 reports percentages of students who required No Teacher Assistance in the general education classroom in each of the four Part A domains at each grade level—kindergarten (21%), first grade (25%), second grade (25%), and third grade (32%). The shaded bar chart in the upper right quadrant of the page reports the same information for declassified students requiring No Teacher Assistance in the general education classroom at each grade level—kindergarten (49%), first grade (44%), second grade (46%), and third grade (44%). The second row of bar charts on page 5-93 reports findings for classified and declassified students by grade in each Part A domain for the Periodic Assistance category; the rows of charts on the next page, for the Frequent Assistance category (top row) and the Continuous Assistance category (bottom row).

EXHIBIT 5-56
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM FOR CLASSIFIED AND DECLASSIFIED PRESCHOOL SERVICES COHORT STUDENTS, KINDERGARTEN THROUGH THIRD GRADE

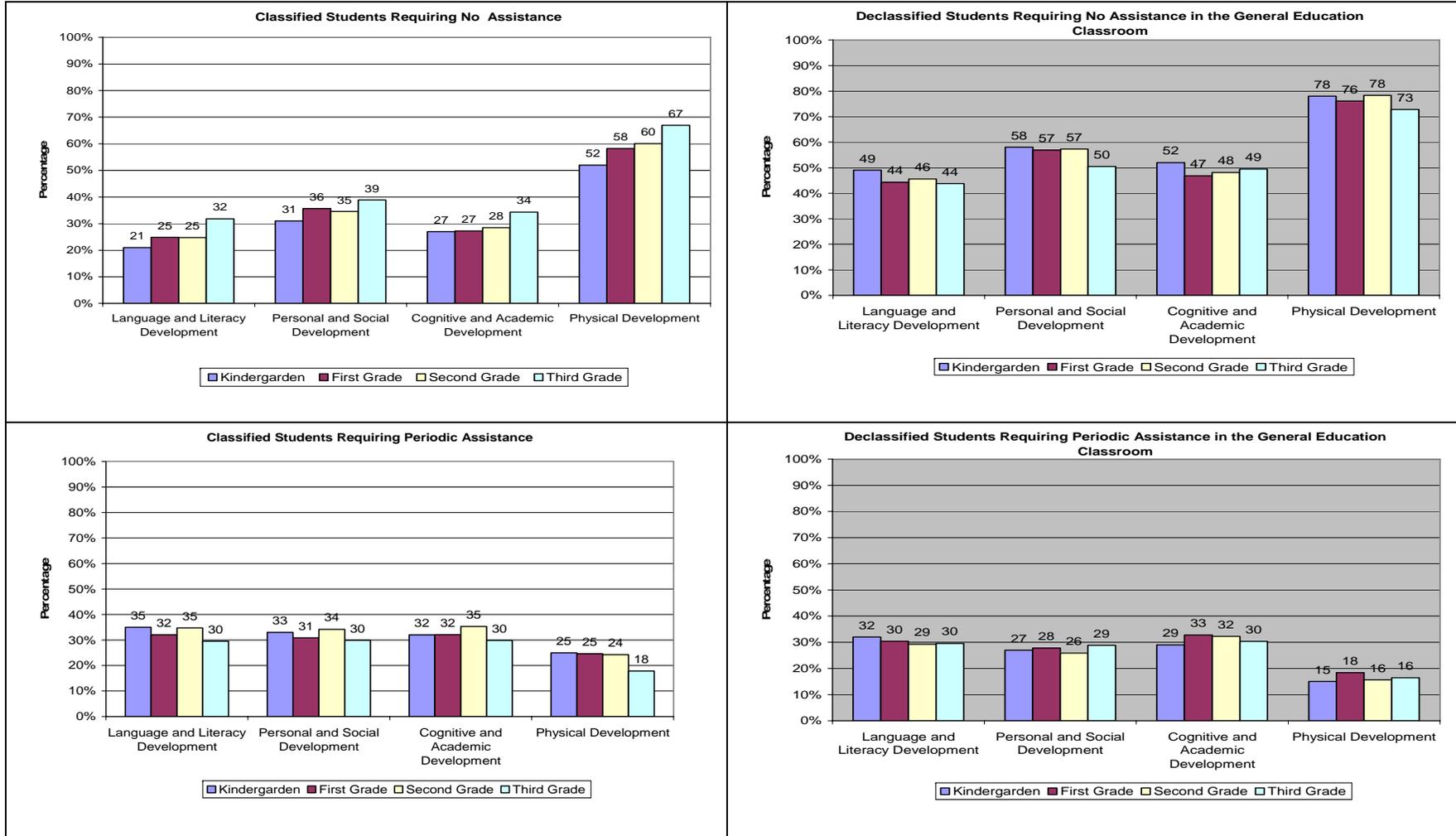
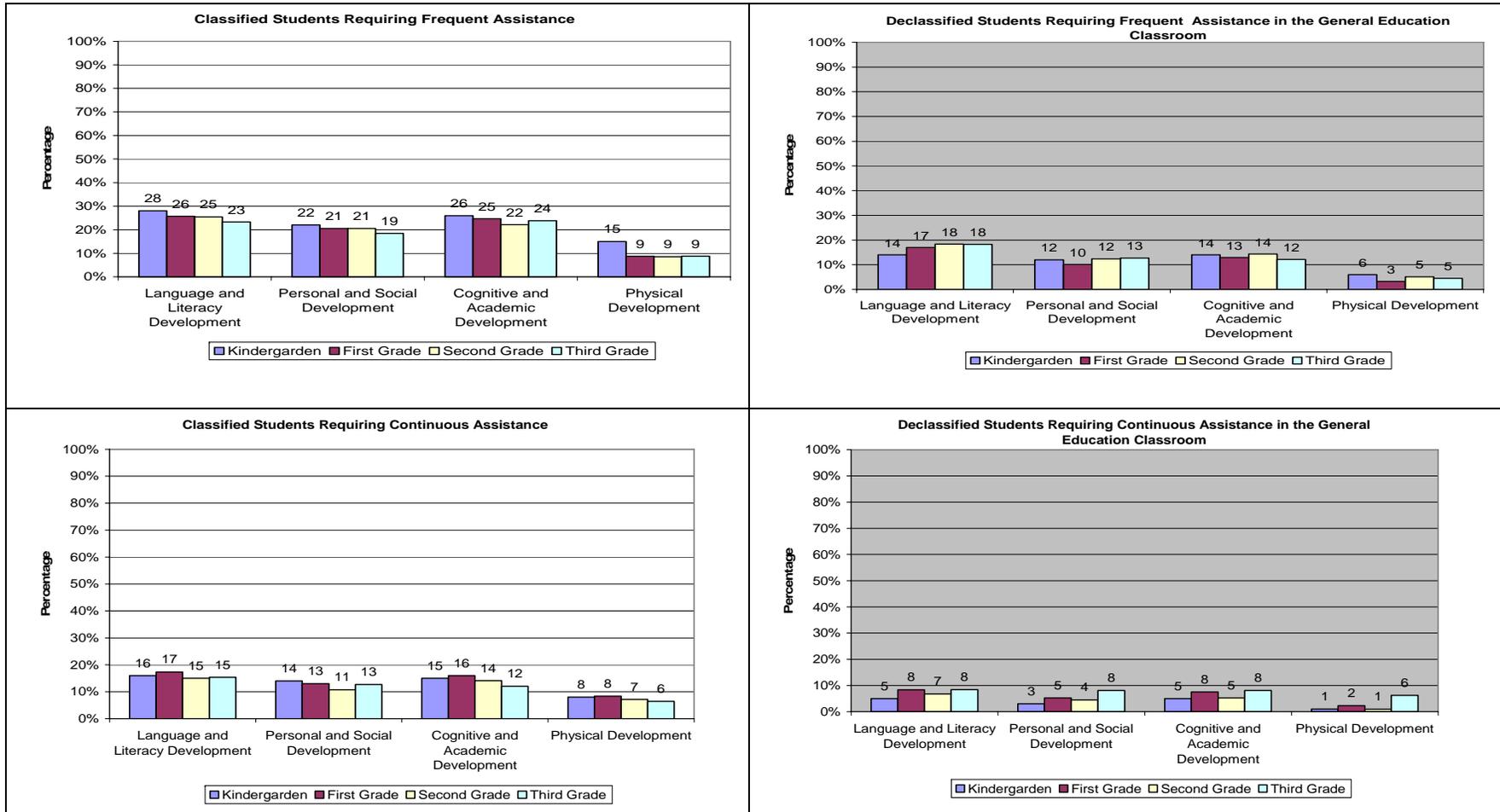


EXHIBIT 5-56 (Continued)
ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM FOR CLASSIFIED AND DECLASSIFIED PRESCHOOL SERVICES COHORT STUDENTS, KINDERGARTEN THROUGH THIRD GRADE



Source: New York school district data, 2001 through 2006.

**5.5.2 Comparing T-CRS Outcomes for Classified and Declassified
Preschool Cohort Students, Kindergarten Through Third Grade**

Exhibit 5-57 reports findings for the four T-CRS domains for classified and declassified students in kindergarten through third grade. As shown:

- For each of the four T-CRS domains—“Task Orientation,” “Behavior Control,” “Assertiveness,” and “Peer and Social Skills”—a significantly higher percentage of students who were declassified were rated in the 51st to 99th percentile than peers who continued to receive special education services in kindergarten through third grade.
- The percentage of declassified students who were rated in the 51st to 99th percentile in three of four T-CRS domains tended to increase only slightly (i.e., one to three percentage points). Percentages in all four T-CRS domains tended to hold steady or decline slightly (i.e., range of decline = 0 - 4 percentage points) from kindergarten to third grade, and to increase significantly (from 50% to 57%) in the “Behavior Control” domain. For classified students, percentages in all four T-CRS domains tended to hold steady or decline slightly (i.e., range of decline is 0-4 percentage points) from kindergarten through third grade.
- Percentages of students achieving 51st to 99th percentile ratings fluctuated from grade to grade, but fluctuations followed opposite trends for the two cohorts. For students who remained classified during the study, percentages tended to increase from kindergarten through second grade and then decline in the third grade. For students who were declassified, percentages tended to decrease from kindergarten through second grade and then increase substantially in third grade.

**EXHIBIT 5-57
PERCENTAGE OF CHILDREN WHO WERE CLASSIFIED VERSUS DECLASSIFIED
UPON TRANSITION TO KINDERGARTEN WHO SCORED IN THE 51ST TO 99TH
PERCENTILE IN THE FOUR DOMAINS OF THE T-CRS**

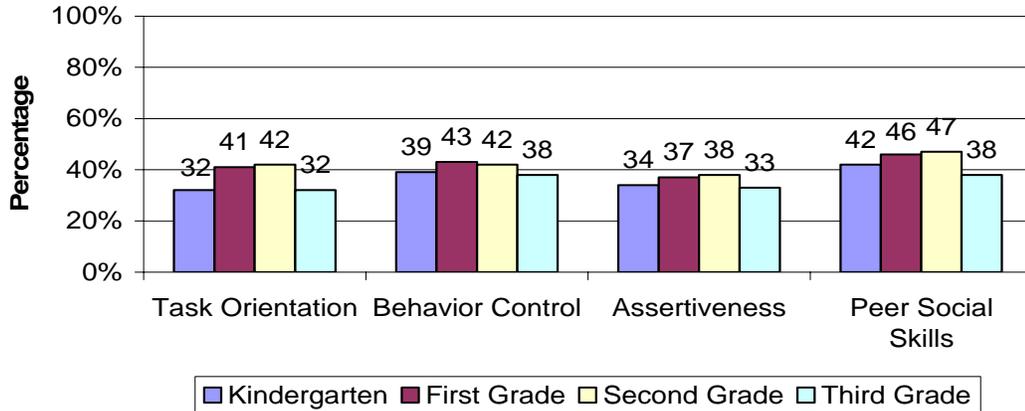
| Kindergarten | Task Orientation | | Behavior Control | | Assertiveness | | Peer Social Skills | |
|--------------|------------------|-----|------------------|-----|---------------|-----|--------------------|-----|
| | N | % | N | % | N | % | N | % |
| Classified | 1,169 | 32% | 1,171 | 39% | 1,173 | 34% | 1,173 | 42% |
| Declassified | 448 | 49% | 448 | 50% | 448 | 45% | 448 | 54% |
| First Grade | Task Orientation | | Behavior Control | | Assertiveness | | Peer Social Skills | |
| | N | % | N | % | N | % | N | % |
| Classified | 926 | 41% | 925 | 43% | 923 | 37% | 925 | 46% |
| Declassified | 746 | 45% | 746 | 47% | 744 | 42% | 744 | 50% |
| Second Grade | Task Orientation | | Behavior Control | | Assertiveness | | Peer Social Skills | |
| | N | % | N | % | N | % | N | % |
| Classified | 793 | 42% | 791 | 42% | 790 | 38% | 793 | 47% |
| Declassified | 410 | 42% | 410 | 46% | 410 | 32% | 410 | 43% |
| Third Grade | Task Orientation | | Behavior Control | | Assertiveness | | Peer Social Skills | |
| | N | % | N | % | N | % | N | % |
| Classified | 714 | 32% | 712 | 38% | 710 | 33% | 711 | 38% |
| Declassified | 205 | 49% | 205 | 57% | 205 | 48% | 203 | 55% |

Source: Teacher-Child Rating Scale, 2002 through 2006.

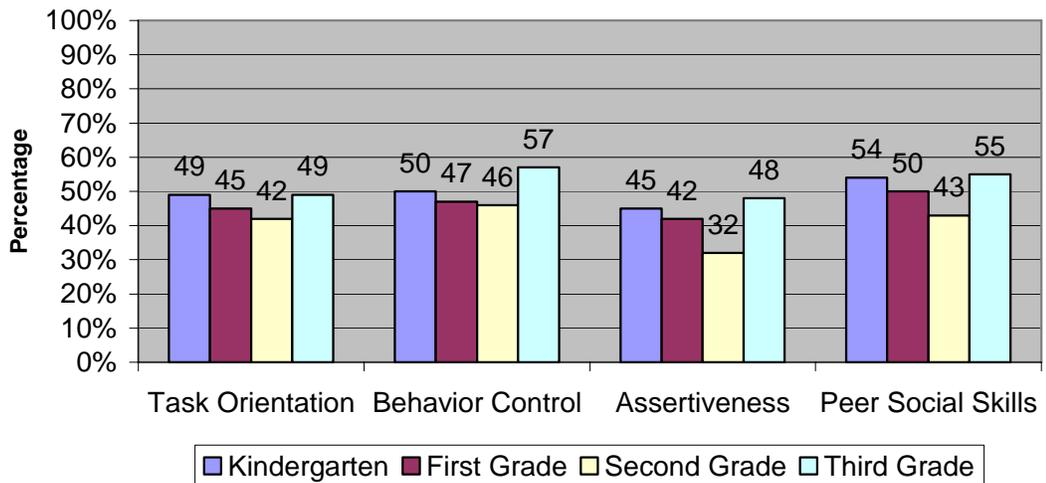
Exhibit 5-58 shows the findings for the four T-CRS domains for classified (top graph, unshaded) and declassified (bottom graph, shaded) students, kindergarten through third grade, in bar graph form.

EXHIBIT 5-58
PERCENTAGE OF CHILDREN WHO WERE CLASSIFIED VERSUS DECLASSIFIED
UPON TRANSITION TO KINDERGARTEN WHO SCORED IN THE 51ST TO 99TH
PERCENTILE IN THE FOUR DOMAINS OF THE T-CRS

**Kindergarten Through Third Grade Classified Student
 Development Rated by Teachers in the 51st to 99th Percentile
 in Four T-CRS Domains**



**Kindergarten Through Third Grade Declassified Student
 Development Rated by Teachers in the 51st to 99th Percentile
 in Four T-CRS Domains**



Source: Teacher-Child Rating Scale, 2002 through 2006.

5.5.3 WSS Outcomes for Classified and Declassified Preschool Cohort Students, Kindergarten Through Third Grade

Exhibits 5-59 and 5-60 present findings for three WSS domains—“Personal and Social Development,” “Language and Literacy Development” and “Mathematical Thinking,” for classified and declassified students in kindergarten through third grade. As shown:

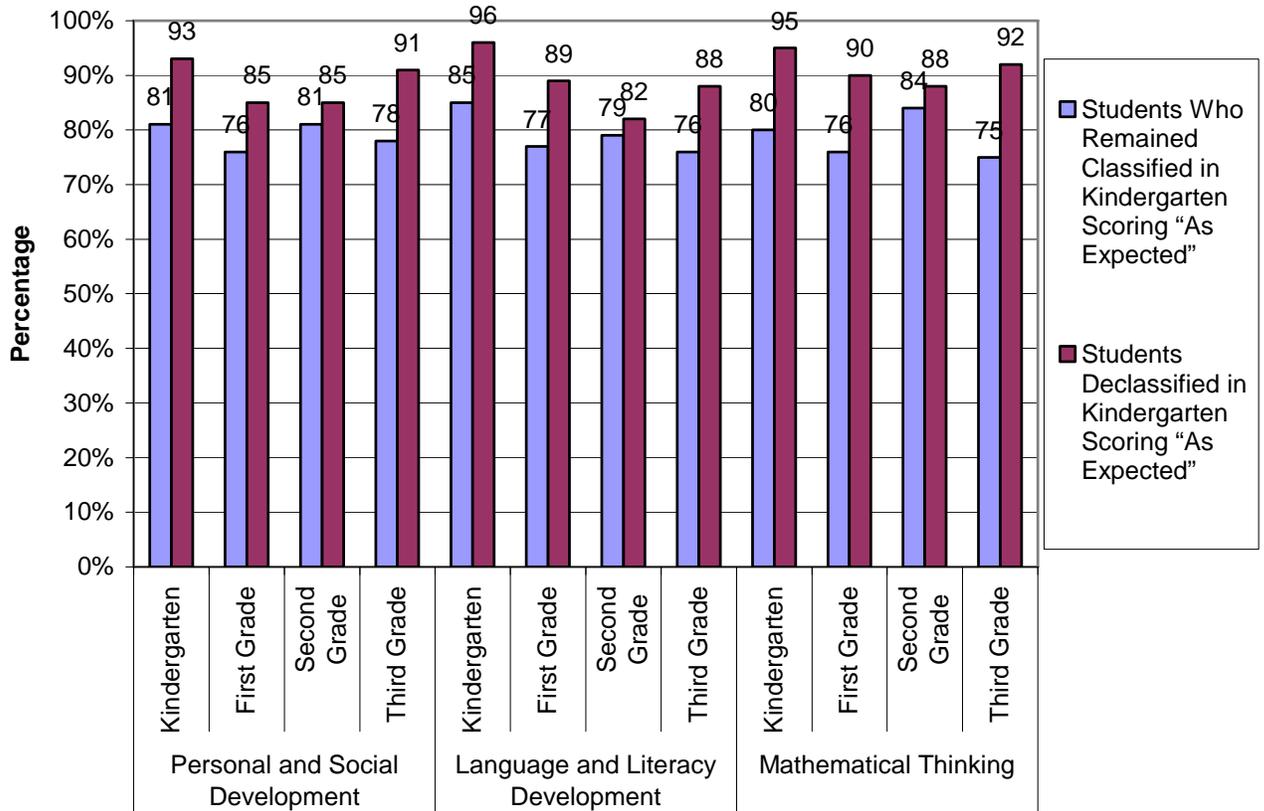
- Students who were declassified between kindergarten and third grade received a higher percentage of As Expected developmental ratings in all three WSS domains than their counterparts who continued to receive special education services.
- Although percentages of As Expected ratings declined among declassified students from kindergarten through third grade in all three WSS domains, percentages tended to decline more rapidly in first and second grades and then to recover somewhat by third grade in the “Personal and Social Development” and “Mathematical Thinking” domains. For students who continued to receive special education services, on the other hand, percentages of As Expected ratings in each domain decreased from kindergarten to first grade but increased in second grade, only to decline again by third grade, below the ratings that the students had achieved in kindergarten.

**EXHIBIT 5-59
PERCENTAGE OF CHILDREN WHO WERE CLASSIFIED VERSUS DECLASSIFIED
UPON TRANSITION TO KINDERGARTEN WHO SCORED “AS EXPECTED” ON THE
THREE DOMAINS OF THE WSS**

| WSS Domain | Students Who Remained Classified in Kindergarten Scoring “As Expected” | | Students Declassified in Kindergarten Scoring “As Expected” | |
|-----------------------------------|--|-----|---|-----|
| | # | % | # | % |
| Kindergarten | | | | |
| Personal and Social Development | 1,306 | 81% | 549 | 93% |
| Language and Literacy Development | 1,305 | 85% | 549 | 96% |
| Mathematical Thinking | 1,306 | 80% | 550 | 95% |
| First Grade | | | | |
| Personal and Social Development | 830 | 76% | 753 | 85% |
| Language and Literacy Development | 835 | 77% | 788 | 89% |
| Mathematical Thinking | 838 | 76% | 813 | 90% |
| Second Grade | | | | |
| Personal and Social Development | 721 | 81% | 645 | 85% |
| Language and Literacy Development | 707 | 79% | 625 | 82% |
| Mathematical Thinking | 748 | 84% | 667 | 88% |
| Third Grade | | | | |
| Personal and Social Development | 673 | 78% | 323 | 91% |
| Language and Literacy Development | 654 | 76% | 313 | 88% |
| Mathematical Thinking | 646 | 75% | 327 | 92% |

Source: Work Sampling System, 2002 through 2006.

EXHIBIT 5-60
PERCENTAGE OF CHILDREN WHO WERE CLASSIFIED VERSUS DECLASSIFIED UPON TRANSITION TO KINDERGARTEN WHO SCORED “AS EXPECTED” IN THE THREE DOMAINS OF THE WSS



Source: Work Sampling System, 2002 through 2006.

5.6 Effects of Selected Demographic Characteristics and Preschool Special Education Services on Three Measures of Student Development: Part A (Participation in General Education), the T-CRS, and the WSS

Earlier sections reporting data for the three outcome measures—Part A (Participation in General Education), the T-CRS, and the WSS—offer considerable information on the general effectiveness of providing preschool special education services for students with disabilities. Submitting those data to statistical tests reveals more about degree of effectiveness and whether or not the impact of preschool special education programs is statistically significant. In such an analysis, the standard of statistical significance permits statements about the probability that gains in students’ developmental progress on a given measure might be attributable to their receipt of preschool special education services. Statistical tests make it possible to make inferences about the relative value-added or value-subtracted of preschool special education programs.

The final section of this chapter reports findings from statistical tests which compared mean teacher ratings on the three outcome measures for special education preschool cohort students with mean ratings for special education students in the comparison cohort using two analytical methods—linear regression to analyze Part A and T-CRS findings, and logistical regression to analyze WSS findings. Appendix C describes the two analytical approaches and their logic in detail, and how they were applied to test the hypothesis that participation in preschool special education services improved students' third grade outcomes as represented by teacher ratings of student development on the three outcome measures.

5.6.1 Variables in the Analyses

To determine the impact of preschool special education on student development in the three outcome measure domains, two regression models were analyzed. The first model compared third grade mean teacher ratings in each domain, respectively, for students in each of three preschool special education service type (PD-7) categories with comparison cohort students. Owing to insufficient sample numbers for the analysis in three of the five original PD-7 categories—SEIT, SEIT and Related Services, and Special Class Program in an Integrated Setting—the five PD-7 categories reported earlier in the chapter were recast as follows: (1) Related Services Only, (2) a new category of Combined Services which combined preschool cohort third grade teacher ratings from three PD-7 categories (SEIT, SEIT and Related Services, and Special Class Program in an Integrated Setting)⁵, and (3) preschool services provided in a Special Class setting, where students had little if any contact with nondisabled peers. Mean values for a construct created for the analysis to determine the effect of school-age services on teacher ratings—Service Intensity—were also calculated for preschool and comparison cohort students,⁶ kindergarten through third grade.⁷

The second model compared third grade teacher ratings in each outcome measure domain *among* the three preschool special education programs and services (PD-7) categories to enable a comparison of teacher ratings within preschool special education programs and services in conjunction with the Service Intensity variable.

5.6.1.1 Deriving the “Service Intensity” Variable

The second goal of the project's Study Goals seeks an understanding of the intensity of [K-3] special education service recommendations for students who received preschool special education services. In the analyses of the impact of preschool special education services on student development for the Part A measure and for subsequent analyses for the T-CRS and the WSS, a quantitative measure of the intensity of school-age

⁵ Although the delivery of services provided in these three preschool service categories is qualitatively different from category to category, none of the three taken individually provided sufficient sample sizes to permit individual mean comparisons without violating assumptions about the normality of the distributions of their ratings. Consequently, to proceed with the analysis, it was necessary to combine the three categories into one “Combined Services” category. Having done so, it was possible to conceive of this combination as the middle range of services in terms of the student's integration into the general education setting. In general, the PD-7 category “Related Services Only” represents the highest level of integration; the “Special Class” category, the lowest.

⁶ Demographic characteristics such as race/ethnicity and gender, and the “Free and Reduced Meal” variable representing the student family socioeconomic status were found to have no significant statistical impact on third grade teacher ratings regardless of cohort and were, therefore, removed from the equation.

⁷ The derivation of the “Service Intensity” variable is discussed in section.5.6.1.1.

special education services received by students was developed. This measure was developed to permit the isolation in our analyses of student progress due to receiving or not receiving preschool special education services from progress that would be attributable to special education services received in kindergarten through third grade.

Since no single variable in the study adequately captured the concept of service intensity, MGT proposed the creation of a Service Intensity variable as a product of two quantities: the amount of time a special education student received special education services at a given grade level and a value that would quantify the degree of inclusiveness found in the programs and services provided. Such a variable would take into account the service received, location in which the service was provided, level of involvement with typical or disabled peers, and whether the special education service was received in a group or individual setting. **Exhibit 5-61** presents these data elements and their categories.

**EXHIBIT 5-61
DATA ELEMENTS USED TO CONSTRUCT SERVICE “WEIGHT” VARIABLE**

| Data Element | Categories |
|--------------------|---|
| Service ID | 101 = Speech Therapy K-3 |
| | 102 = Occupational Therapy K-3 |
| | 103 = Physical Therapy K-3 |
| | 104 = Assistive Technology Services K-3 |
| | 105 = Counseling K-3 |
| | 106 = Audiological K-3 |
| | 107 = Psychological K-3 |
| | 108 = Rehabilitation Counseling K-3 |
| | 109 = Orientation/Mobility Services K-3 |
| | 110 = Medical Services K-3 |
| | 111 = School Health K-3 |
| | 112 = School Social Work K-3 |
| | 113 = Parent Counseling, Training, and/or Education K-3 |
| | 114 = Consultant Teacher K-3 |
| | 115 = Resource Room Program K-3 |
| | 116 = Special Class K-3 |
| | 117 = Other K-3 |
| Type | Type of Service (used for Related Services and Resource Room) |
| | 1 = Individual |
| | 2 = Group |
| Location | Location of Service (used for Related Services and Resource Room) |
| | 1 = General Education Classroom |
| | 2 = Classroom or Office in General Education Building |
| | 3 = Classroom or Office in Separate Building |
| | 4 = Combination |
| Involvement | Involvement (used for Related Services and Resource Room) |
| | 1 = One-to-One |
| | 2 = All Typical Peers |
| | 3 = All Disabled Peers |
| | 4 = Combination |

Source: New York school district data, 2001 through 2006.

Combinations of these data element categories were arrayed according to a 5-point scale (i.e., 1 through 5) to assign a quantity representing the weighted value of the nature of the service received by the student, as presented in **Exhibit 5-62**. Following this exhibit is a more detailed discussion of the logic of their assignment.

**EXHIBIT 5-62
DATA ELEMENTS USED TO DETERMINE “SERVICE INTENSITY”**

| Service | Type | Location | Involvement | Weight |
|--|----------------------------|---|--|---------------|
| Consultant Teacher | Inclusive | General Education Classroom | Inclusive with Typical Peers | 1 |
| All Related Services, Resource Room, and Special Class | Group | General Education Classroom or Classroom or Office in General Education Building | Combination of Typical and Disabled Peers | 2 |
| All Related Services, Resource Room, and Special Class | Group | Classroom or Office in General Education Building | All Disabled Peers | 3 |
| All Related Services and Resource Room | Individual | Classroom or Office in General Education Building | One-to-One | 4 |
| All Related Services, Resource Room, and Special Class | Individual or Group | Classroom or Office in Separate Building | One-to-One (Individual) or All Disabled Peers (Group) | 5 |

Source: New York school district data, 2001 through 2006.

Consultant teacher services were determined to be the least “intrusive” service based on the inclusive nature of the service. Location was assigned as general education classroom. Type was assigned as inclusive, and Involvement was assigned as inclusive with typical peers. The combination of these variables yielded a weight value of 1.

All other group related services, resource room, and special class received in a general education setting with both typical and disabled peers yielded a weight value of 2. Location was assigned as general education classroom or classroom or office in general education building, Type was assigned as group, and Involvement was assigned as a combination of typical and disabled peers.

All other group related services, resource room, and special class where Involvement was limited to all disabled peers yielded a weight value of 3. Location was assigned as classroom or office in general education building. Type was assigned as group, and Involvement was assigned as all disabled peers with no interaction with typical peers while the service was received.

All other individual related services and resource room received in the general education setting yielded a weight value of 4. Location was assigned as classroom or office in general education building. Type was assigned as individual, and Involvement was assigned as one-to-one.

Finally, those services, whether group or individual, received in a building outside of the general education setting yielded a weight value of 5. Location was assigned to classroom or office in separate building. Type was assigned as either individual or group

setting, and Involvement was assigned as one-to-one for individual services or all disabled peers for group services.

5.6.2 Part A: Third Grade Mean Teacher Ratings in Four Part A Domains and for Service Intensity

The Part A “Participation in General Education” measure assessed student development in four domains—“Language and Literacy Development,” “Personal and Social Development,” “Cognitive and Academic Development,” and “Physical Development”—through teacher ratings of teacher assistance required by special education students beyond that typically provided to all students, regardless of cohort, in a general education classroom environment with nondisabled peers. Teacher ratings were assigned in the following categories: 1 = No Assistance Required, 2 = Periodic Assistance Required, 3 = Frequent Assistance Required, and 4 = Continuous Assistance Required. **Exhibit 5-63** below reports Part A third grade mean teacher ratings of levels of teacher assistance required by special education students in the general education classroom.

**EXHIBIT 5-63
PART A THIRD GRADE MEAN TEACHER RATINGS**

| Part A Developmental Domain | "Related Services Only" | "Combined Services" | "Special Class" | "Comparison Cohort" |
|------------------------------------|-------------------------|---------------------|-------------------|---------------------|
| Language and Literacy Development | 1.96 (n = 535) | 2.21 (n = 172) | 2.5 (n = 185) | 2.72 (n = 518) |
| Personal and Social Development | 1.82 (n = 540) | 2.01 (n = 174) | 2.3 (n = 187) | 2.12 (n = 539) |
| Cognitive and Academic Development | 1.81 (n = 539) | 2.17 (n = 172) | 2.44 (n = 187) | 2.27 (n = 529) |
| Physical Development | 1.44 (n = 546) | 1.49 (n = 174) | 1.73 (n = 197) | 1.46 (n = 554) |
| Service Intensity | 361.14 (n = 457) | 819.42 (n = 249) | 1647.7 (n=456) | 646.87 (n = 686) |

Source: Part A “Participation in General Education” Survey, 2002 through 2006.

Note: Standard deviations for each domain mean ranged as follows: “Language and Literacy Development,” 0.997 to 1.09; “Personal and Social Development,” 0.98 to 1.08; “Cognitive and Academic Development,” 0.95 to 1.07; for 0.82; and “Physical Development,” 0.97 to 1.06.” The deviation for overall “Service Intensity” ranged from 627.77 to 1146.04.

Note: “Combined Services” is a combination of the three preschool special education service type (PD-7) categories: “SEIT,” “SEIT and Related Services,” and “Integrated Special Class Setting.”

In **Exhibit 5-63**, in all four Part A domains, mean ratings for third graders who received preschool Related Services Only, the more integrated setting—were lower than ratings for students in all other categories—Combined Services, Special Class, and Comparison Cohort. Ratings for third graders who received preschool Related Services Only ranged between 1 (No Assistance Required) and 2 (Periodic Assistance Required). This leads to the conclusion that these students required less assistance than those in the other categories. Assuming the three preschool special education service type categories are representative of a continuum of integration with respect to the general

education setting—most integrated to least integrated—mean ratings in the three categories tended to confirm that preschool special education programs and services placements were, most likely, appropriate, given that teacher assistance required in the third grade general education classroom tended to be greater for students who had been served in less integrated PD-7 categories and less for those previously served in more integrated PD-7 categories. This observation may be underscored by comparing the Service Intensity mean ratings for each of the three preschool special education service type categories. One might expect higher Service Intensity values for students who received less integrated types of services (i.e., Special Class) than for those who received more integrated types of services (Related Services Only and Combined Services).

The mean teacher ratings in each domain calculated for students in the comparison cohort, which, with the exception of the “Physical Development” domain, tended to fall within the range of mean ratings for preschool cohort students in the Combined Services and Special Class preschool service type categories— between 2 (Periodic Assistance Required) and 3 (Frequent Assistance Required). The mean Service Intensity value calculated for the comparison cohort’s school-age services exceeded only the mean Service Intensity value for third graders who received preschool Related Services Only. This implies that students in the comparison cohort might have required less teacher assistance by third grade had their disability been identified early on (i.e., many did not receive special education services until the first, second, or third grade), had they received preschool special education services, had their school-age services been more intense, or all three.

One final point about Service Intensity mean ratings should be underscored before discussing regression findings related to the specific effect of preschool special education services on student development. It must be kept in mind that Service Intensity mean values for both the preschool and comparison cohorts, in general, were derived from the sum of the intensity of school-age special education services received by students in kindergarten through third grade. Service Intensity values for the comparison cohort were derived from the sum of the intensity of their services beginning with the grade at which they entered the study. For a comparison cohort student who only entered the study after second grade, as was the case for more than 40 percent of the third grade sample, the calculation of Service Intensity would have been based on the intensity of their services in third grade only. The role of school-age special education services in student development is qualitatively and quantitatively different for the two cohorts. The average degree of disability for the two cohorts might have been different, given that impairments of comparison cohort students entering the study in later grades may have become apparent later than those of many students who were classified before or upon entering preschool. The further implications of this distinction for the analysis of a preschool effect on student development will be discussed in the next section, in which Part A teacher ratings of assistance required in the general education classroom are submitted to statistical tests to assess the impact of preschool special education services.

5.6.2.1 How “Service Intensity” Was Calculated: An Illustration

To derive a quantity representing the intensity of special education services received by a student, we began by calculating a quantity representing Service Duration, or the

amount of time the student spent in receipt of special education services at each grade level, kindergarten through third, based on a combination of three variables:

- Interval of Service (daily, weekly, monthly)
- Number of Sessions per Interval
- Number of Minutes per Session

Next, this value was multiplied by the weight value of student services from **Exhibit 5-62** (above), as determined from the combined service Type, Location and Involvement information provided for each student, with 1 being the lowest weight value and 5 the highest. Finally, the two values—Service Duration and Service Weight—were multiplied to derive a value representing the intensity of student preschool special education services for a given grade. To determine the total effect of Service Intensity for all grades in which students received special education services, kindergarten through third grade, grade-level intensity values were summed.

To illustrate, if we have a student, “John Doe,” who received special education services each year, kindergarten through third grade, first we derive his kindergarten Service Intensity value by calculating Service Duration, in this case, five times per week, six hours per session, for nine months (36 school weeks):

Kindergarten Service Duration = 5 sessions X 6 hours X 36 weeks, yielding a value of 1080

Next, to derive a Service Intensity value for John Doe’s kindergarten year services, assuming a weight value of “5” derived from the combination of his kindergarten service Type, Location, and Involvement variables, we perform the following calculation:

Kindergarten Service Intensity = 5 (service weight value) X 1080, yielding a value of 5,400

To derive a Service Intensity value for all four grades—assuming, for simplicity’s sake, that the intensity of his special education schedule and its value (1,080) remained the same for subsequent grades, first through third—all years would be summed:

Total Service Intensity = 4 years X 5,400, yielding a value of 21,600

***5.6.2.2 Regression Analysis: Part A “Participation in General Education,”
Comparing Third Grade Mean Teacher Ratings for Three PD-7
Categories and the Comparison Cohort***

As described above, the first regression model compared third grade teacher ratings in each Part A domain, respectively, for students in each of the three preschool special education service type (PD-7) categories with ratings for comparison cohort students. **Exhibit 5-64** below reports linear regression findings in three combinations of analysis comparing preschool cohort third grade ratings for each of the PD-7 categories with ratings for the comparison cohort. The purpose was to determine if preschool special education affected student developmental progress. In the exhibit, items of particular interest include the F- and probability values and the regression coefficients in the last three columns. Asterisked values note that differences between means achieved statistical significance. Statistical significance is a standard that assesses the probability

that differences in ratings between two groups—for example, third graders who received preschool Related Services Only and those who received no special education services were derived from a sample that was not representative of the true population of special education students in both the preschool and comparison cohorts. When findings are accompanied by a probability, or p-value of less than 0.05, we can assert that the chance that findings are not representative of the true population of students is less than 5 in 100. Therefore, when a finding is accompanied by a p-value that is less than 0.05 (i.e., $p < 0.05$), we can infer with confidence that the finding was due to different services experienced by one group that the other did not receive—in this case, receiving preschool special education services in a given PD-7 category or receiving no preschool special education services at all.

In every analysis that follows the specific effect of Service Intensity on student development, isolated from the effects of all other variables including receiving or not receiving preschool special education services, achieved statistical significance. School-age special education services in every analysis made a statistically significant, positive impact on student third grade performance as measured by teacher ratings of third grade development, regardless of cohort.

The analysis of Part A findings that follows, as well as the analyses of T-CRS and WSS findings, have neutralized the contribution of Service Intensity (have held Service Intensity constant) to isolate the specific impact of preschool special education services

The regression findings for the Part A measure show in **Exhibit 5-64**, that when the contribution of Service Intensity was held constant, preschool cohort third grade students receiving Related Services Only required significantly less teacher assistance than students in the comparison cohort on teacher ratings of Language and Literacy Development ($b = -0.411$), Personal and Social Development ($b = -0.226$), and Cognitive and Academic Development ($b = -0.383$). To interpret the impact of preschool Related Services Only on Language and Literacy Development, the b-value of -0.411 suggests that when third grade students who received preschool Related Services Only received a teacher assistance rating of 1⁸ (Required No Teacher Assistance)⁹, the comparison cohort teacher rating would be 1.411, a higher value falling between 1 (No Assistance Required) and 2 (Periodic Assistance Required). This higher value for the comparison group suggests that students in the comparison cohort tended to receive a greater frequency of higher Assistance Required ratings (i.e., 2 – 4). Since the probability associated with this finding ($p = 0.000$) was less than the p-value standard for “statistical significance ($p < 0.01$), we can accept the hypothesis that third grade special education students who received preschool Related Services Only required less teacher assistance in the general education classroom in Language and Literacy Development than third grade special education students who received no preschool special education services as a function of their receipt of preschool services. The same can be said for the Personal and Social Development and Cognitive and Academic Development domains. On the other hand, in the Physical Development domain, nonsignificant findings (i.e., $p > .05$) in the comparison of preschool cohort third grade teacher ratings with third grade comparison cohort ratings suggests we must reject the hypothesis that preschool special education services made a difference in special education students’

⁸ Assumed for the sake of a simple illustration to be the “constant” value.

⁹ Assumed for the sake of a simple illustration to be the “constant” value.

Physical Development, a finding supported by the nearly identical mean teacher ratings reported in **Exhibit 5-63**.

When teacher ratings in the Language and Literacy Development domain were compared for the subsample of preschool cohort students in both the Combined Services and Special Class subsamples with ratings for comparison cohort students, preschool cohort students in these two preschool special education categories also required significantly less teacher assistance than students in the comparison cohort (i.e., Combined Services, $b = -0.249$; Special Class services, $b = -0.245$). That the probability of this finding was statistically significant ($p = 0.000$) suggests acceptance of the hypothesis that third grade special education students who received preschool Combined Services and Special Class services required less teacher assistance in the general education classroom in Language and Literacy Development than third grade special education students who received no preschool special education services.

Although mean ratings reported in **Exhibit 5-63** indicated a positive preschool special education effect in the Personal and Social Development, Cognitive and Academic Development, and Physical Development domains, regression analysis shows that membership in either the Combined Services or Special Class preschool cohort subsamples had no significant impact on teacher ratings when compared with ratings for the comparison cohort, so we must reject the hypothesis that preschool special education services in these categories made a difference in teacher ratings of preschool cohort students when compared with comparison cohort ratings.

EXHIBIT 5-64
PART A TEACHER RATINGS OF "ASSISTANCE REQUIRED IN THE GENERAL EDUCATION CLASSROOM" FOR PRESCHOOL AND COMPARISON COHORT THIRD GRADE STUDENTS

| Part A Developmental Domains | N | Adjusted R-square | F- value (F) | Probability (p) | Coefficients (b) | | |
|------------------------------|------|-------------------|--------------|-----------------|--|---|---------------------------------------|
| | | | | | "Related Services" vs. Comparison Cohort | "Combined Services" vs. Comparison Cohort | "Special Class" vs. Comparison Cohort |
| Language and Literacy | 1130 | 0.114 | 37.255 | 0.000 | -0.411* | -0.249* | -0.245* |
| Personal and Social | 1155 | 0.106 | 35.06 | 0.000 | -0.226* | -0.115 | -0.042 |
| Cognitive and Academic | 1142 | 0.114 | 37.644 | 0.000 | -0.383* | -0.111 | -0.123 |
| Physical | 1183 | 0.049 | 16.352 | 0.000 | 0.064 | 0.028 | 0.15 |

Source: Part A "Participation in General Education" Survey, 2002 through 2006.

Note: Negative coefficient values above connote the need for "less teacher assistance" for the given preschool cohort category when compared with the comparison cohort. Asterisks (*) indicate statistically significant values (i.e., $p < .05$) relative to the need for less teacher assistance.

**5.6.2.3 Regression Analysis: Part A “Participation in General Education”
Comparisons of Third Grade Teacher Ratings in Three Preschool
Special Education Categories**

The second regression model looked within the preschool cohort at three preschool special education categories to compare Part A mean teacher ratings in each service category, one to another. Examining **Exhibit 5-65**, two of these subgroup comparisons in the “Cognitive and Academic Development” subdomain revealed significant differences in teacher ratings of assistance required in the general education classroom. For the comparison of mean ratings between third graders who received preschool Related Services Only and those who received Combined Services, students who received preschool Related Services Only required significantly less assistance than those in the second preschool category ($b = -0.274$, $F < 0.01$). In other words, when third graders who received preschool Related Services Only received a teacher assistance rating of 1 (Required No Teacher Assistance), the teacher rating for preschool special education Combined Services students would be 1.274, a higher value falling between 1 (No Assistance Required) and 2 (Periodic Assistance Required). Findings were similar for the ratings comparison between third graders who received preschool Related Services and those who received preschool Special Class services ($b = -0.267$, $F < 0.01$). For this comparison, when third grade students in the preschool Related Services Only category received a rating of 1, third graders who received preschool Special Class services would receive a rating of 1.267. In general, then, these higher values for the Combined Services and Special Class services groups suggests that they were more likely to receive other, higher Assistance Required ratings (i.e., 2 – 4) when third graders in the preschool Related Services Only sample were assigned a teacher rating of 1 (No Assistance Required).

**EXHIBIT 5-65
PART A TEACHER RATINGS OF “ASSISTANCE REQUIRED IN THE GENERAL
EDUCATION CLASSROOM” FOR PRESCHOOL COHORT THIRD GRADE
STUDENTS IN THREE PRESCHOOL SPECIAL EDUCATION CATEGORIES**

| Part A Developmental Domains | N | Adjusted R-square | F- value (F) | Probability (p) | Coefficients (b) | | |
|------------------------------------|-----|----------------------|--------------|-----------------|---|--|--|
| | | | | | "Related Services" vs. "Combined Services" | "Related Services" vs. "Special Class" | "Combined Services" vs. "Special Class" |
| Language and Literacy | 708 | 0.118 | 32.618 | 0.000 | -0.157 | 0.151 | -0.006 |
| Personal and Social | 716 | 0.133 | 37.706 | 0.000 | -0.09 | 0.116 | 0.027 |
| Cognitive and Academic | 714 | 0.124 | 34.616 | 0.000 | -0.274* | -0.267* | -0.007 |
| Physical | 735 | 0.051 | 14.015 | 0.000 | 0.046 | 0.053 | 0.1 |

Source: Part A “Participation in General Education” Survey, 2002 through 2006.

Negative coefficient values above connote the need for “less teacher assistance” for the given preschool cohort category when compared with the comparison cohort. Asterisks (*) indicate statistically significant values (i.e., $p < .05$) relative to the need for less teacher assistance.

5.6.3 Third Grade Mean Teacher Ratings in Four T-CRS Domains and for "Service Intensity"

Exhibit 5-66 below reports T-CRS third grade mean teacher ratings of special education student development in four socio-emotional developmental domains—"Task Orientation," "Behavior Control," "Assertiveness," and "Peer Social Skills." Unlike T-CRS exhibits presented earlier in the chapter, which reported percentages of preschool and comparison cohort students whose teacher developmental ratings fell within the range of 51 to 99 percent, mean values below are reported as raw scores to permit linear rather than logistical regression.

Comparing mean teacher ratings of third grade student development in the four T-CRS developmental domains for third graders who received preschool special education services in the three service categories used for this analysis and comparison cohort students who received no preschool special education services, it can be seen that mean teacher ratings for third graders who received preschool Related Services Only tended to be higher than those for students in the other preschool special education service categories and for the comparison cohort. Although, generally, teacher developmental ratings for third graders in the Combined Services category tended to mirror those of the comparison cohort; developmental ratings for third grade students who received preschool Special Class services tended to be lower than for students in both categories.

**EXHIBIT 5-66
THIRD GRADE MEAN TEACHER RATINGS IN FOUR T-CRS DOMAINS AND FOR SERVICE INTENSITY**

| T-CRS Developmental Domains | "Related Services Only" | "Combined Services" | "Special Class" | "Comparison Cohort" |
|-----------------------------|-------------------------|---------------------|--------------------|---------------------|
| Task Orientation | 26.44 (n = 539) | 23.51 (n = 213) | 21.72 (n = 408) | 22.68 (n = 633) |
| Behavior Control | 29.14 (n = 540) | 26.48 (n = 211) | 25.47 (n = 408) | 26.55 (n = 633) |
| Assertiveness | 27.55 (n = 536) | 25.97 (n = 212) | 24.91 (n = 407) | 25.48 (n = 629) |
| Peer Social Skills | 29.72 (n = 537) | 27.85 (n = 212) | 26.7 (n = 405) | 26.9 (n = 632) |
| Service Intensity | 361.14 (n = 457) | 819.42 (n = 249) | 1647.7 (n=456) | 646.87 (n =686) |

Source: Teacher-Child Rating Scale, 2002 through 2006.

Note: Mean scores reported in the exhibit represent T-CRS raw scores. Since the T-CRS rates developmental progress for "all students," with or without disabilities, mean scores above 24 represent scores above the median score for "all students." The ranges of standard deviations were: 7.90 to 9.14 for Task Orientation, 7.42 to 8.16 for Behavior Control, 6.53 to 6.98 for Assertiveness, 7.90 to 8.58 for Peer Social Skills, and 627.77 to 1146.04 for Service Intensity.

5.6.3.1 Regression Analysis: T-CRS Ratings, Comparing Third Grade Mean Teacher Ratings for Three PD-7 Categories and the Comparison Cohort

Consistent with mean values reported in **Exhibit 5-66**, **Exhibit 5-67** reports regression findings for third grade students who received preschool Related Services Only and for the comparison cohort. Results indicate a statistically significant difference in their respective developmental ratings in all four T-CRS domains as a function of their receipt of preschool special education services: Task Orientation (b = 3.253), Behavior Control (b = 1.940), Assertiveness (b = 1.632) and Peer Social Skills (b = 2.529). The following example will help interpret the effect of preschool special education services on Task Orientation teacher ratings. When a comparison cohort third grade student received a developmental rating score of 20,¹⁰ a third grade student who received preschool Related Services Only received a score of 20 plus 3.253, or 23.253. That the probability of this finding was statistically significant (p = 0.000) suggests that we can accept the hypothesis that third grade special education students who received preschool Related Services Only would be significantly more task-oriented than third grade special education students who received no preschool special education services. The same can be said for the “Behavioral Control,” “Assertiveness,” and “Peer Social Skills” domains. On the other hand, the absence of any other significant b-values for other preschool special education service group comparisons with the comparison cohort in the other four T-CRS domains suggests that receipt of preschool special education services in those categories had no significant impact on third grade T-CRS teacher ratings, a finding supported by the nearly identical mean teacher ratings being reported in **Exhibit 5-66**.

**EXHIBIT 5-67
T-CRS RATINGS FOR PRESCHOOL AND COMPARISON COHORT THIRD GRADE STUDENTS**

| T-CRS Developmental Domains | N | Adjusted R-square | F- value (F) | Probability (p) | Coefficients (b) | | |
|-----------------------------|------|-------------------|--------------|-----------------|--|---|---------------------------------------|
| | | | | | “Related Services” vs. Comparison Cohort | “Combined Services” vs. Comparison Cohort | “Special Class” vs. Comparison Cohort |
| Task Orientation | 1501 | 0.066 | 27.552 | 0.000 | 3.253* | 0.796 | 0.165 |
| Behavior Control | 1500 | 0.054 | 22.559 | 0.000 | 1.940* | -0.107 | -0.117 |
| Assertiveness | 1493 | 0.038 | 43.408 | 0.000 | 1.632* | 0.608 | 0.476 |
| Peer Social Skills | 1497 | 0.034 | 13.221 | 0.000 | 2.529* | 0.97 | 0.877 |

Source: Teacher-Child Rating Scale, 2002 through 2006.

Note: Asterisks (*) indicate statistically significant values (i.e., p < .05). Positive coefficient scores without asterisks connote higher teacher ratings for the subgroup of the “Preschool Cohort” than for the “Comparison Cohort”, but these are not statistically significant. Negative coefficient values above connote higher teacher ratings for the “Comparison Cohort”, although these were not statistically significant

5.6.3.2 Regression Analysis: T-CRS Ratings, Comparing Third Grade Mean Teacher Ratings for Three PD-7 Categories

The second regression model looked within the preschool cohort at three preschool special education service categories to compare T-CRS mean teacher ratings in each

¹⁰ Assumed for the sake of a simple illustration to be the “constant” value.

category, one to the other. **Exhibit 5-68** shows that developmental ratings for third grade students in Related Services Only were also significantly higher than for students in the Combined Services subsample in both the Task Orientation ($b = 2.187$) and the Behavior Control ($b = 1.777$) domains. In the same two T-CRS categories, teacher ratings of student development for third graders who received preschool Related Services Only were also significantly higher than for students who received preschool Special Class services (Task Orientation, $b = 2.342$; Behavior Control, $b = 1.323$). These findings suggest acceptance of the hypothesis that third grade student progress in these two T-CRS domains is greater for students who received preschool Related Services Only than for those in Combined Services and Special Class. On the other hand, there was no statistical difference in ratings for any preschool comparison combination in the Assertiveness and Peer Social Skills domains, nor in any of the four T-CRS domains when developmental ratings were compared for third grade students who had previously received Combined Services or Special Class.

**EXHIBIT 5-68
T-CRS RATINGS, COMPARING THIRD GRADE MEAN TEACHER RATINGS FOR
THREE PD-7 CATEGORIES**

| T-CRS Developmental Domains | N | Adjusted R-square | F- value (F) | Probability (p) | Coefficients (b) | | |
|-----------------------------|-----|-------------------|--------------|-----------------|--|--|---|
| | | | | | "Related Services" vs. "Combined Services" | "Related Services" vs. "Special Class" | "Combined Services" vs. "Special Class" |
| Task Orientation | 968 | 0.102 | 37.539 | 0.000 | 2.187* | 2.342* | 0.155 |
| Behavior Control | 967 | 0.094 | 34.468 | 0.000 | 1.777* | 1.323* | -0.454 |
| Assertiveness | 964 | 0.045 | 16.161 | 0.000 | 0.958 | 0.975 | 0.018 |
| Peer Social Skills | 965 | 0.052 | 18.534 | 0.000 | 1.288 | 0.902 | -0.385 |

Source: Teacher-Child Rating Scale, 2002 through 2006.

Note: Asterisks (*) indicate statistically significant values (i.e., $p < .05$). Positive coefficients without asterisks connote higher teacher ratings for the "Preschool Cohort" subgroup, but these differences are not statistically significant. Negative coefficient values above connote higher teacher ratings for the "Comparison Cohort", although these were not statistically significant

**5.6.4 WSS Third Grade Mean Teacher Ratings and Service Intensity for
Three Preschool PD-7 Categories and the Comparison Cohort**

Exhibit 5-69 below reports the mean WSS third grade teacher ratings of special education student development in three developmental domains: "Personal and Social Development," "Language and Literacy Development," and "Mathematical Thinking." Teachers rated third grade student development in each domain either As Expected or Needs Development. Comparing the percentage mean of As Expected teacher ratings of third grade student development in the three WSS developmental domains for preschool and comparison cohort third graders, it can be seen that mean teacher ratings for third graders who received preschool Related Services Only tended to be higher than those for students in the other preschool special education programs and services and in the comparison cohort. Although, generally, teacher developmental ratings for third graders in Combined Services tended to mirror those for the comparison cohort, third grade students who received preschool Special Class tended to be rated As Expected at a lower rate than students in both categories.

**EXHIBIT 5-69
WSS THIRD GRADE MEAN TEACHER RATINGS AND SERVICE INTENSITY FOR
THREE PRESCHOOL SPECIAL EDUCATION SERVICE TYPE (PD-7) CATEGORIES
AND THE COMPARISON COHORT**

| WSS Developmental Domains | "Related Services Only" | "Combined Services" | "Special Class" | "Comparison Cohort" |
|---------------------------|-------------------------|---------------------|-----------------|---------------------|
| Personal and Social | 89% | 80% | 74% | 79% |
| | (n = 512) | (n = 255) | (n = 461) | (n = 764) |
| Language and Literacy | 87% | 81% | 71% | 81% |
| | (n = 512) | (n = 255) | (n = 461) | (n = 764) |
| Mathematical Thinking | 90% | 80% | 69% | 84% |
| | (n = 512) | (n = 255) | (n = 461) | (n = 764) |
| Service Intensity | 361.14 | 819.42 | 1647.7 | 646.87 |
| | (n = 457) | (n = 249) | (n=456) | (n =686) |

Source: Work Sampling System, 2002 through 2006.

*PD-7 category (The "Residential Facility" preschool setting excluded from all charts because no study participants were placed in such a setting.)

Note: ^d The ranges of standard deviations were 0.31 to 0.44 for Domain 1, 0.34 to 0.46 for Domain 2, 0.30 to 0.46 for Domain 3, and 627.77 to 1146.04 for Service Intensity.

5.6.4.1 Regression Analysis: WSS (WSS) Comparing Third Grade Mean Teacher Ratings for Three PD-7 Categories and the Comparison Cohort

Exhibit 5-70 reports logistical regression findings for third grade preschool cohort students in the three preschool special education categories used for the analysis and for third graders in the comparison group for the three WSS developmental domains. Only the odds ratio comparing As Expected ratings for preschool cohort students who received preschool Related Services Only and the comparison group achieved statistical significance suggesting that special education students who received Related Services Only were nearly twice as likely as their comparison cohort peers to progress developmentally As Expected in this domain as a function of their receipt of preschool special education services. For the first time in any of the three outcome measure analyses, students in the comparison cohort outperformed third graders in one of the preschool special education service type categories, as seen in the comparison of third graders who received preschool Special Class services and the comparison cohort. By comparing the odds of receiving a developmental rating of As Expected in the "Mathematical Thinking" domain for Special Class third grade students and comparison cohort third graders, we see that Special Class students are less than two-thirds as likely ($b = 0.649$) to receive an As Expected developmental rating. Other combinations of preschool and comparison cohorts revealed no significant difference in the likelihood of their receiving an As Expected developmental rating. This suggests that receiving preschool special education services in these instances had no impact on teacher As Expected ratings in third grade.

**EXHIBIT 5-70
REGRESSION ANALYSIS: WSS COMPARING THIRD GRADE MEAN
TEACHER RATINGS FOR THREE PD-7 CATEGORIES AND THE
COMPARISON COHORT**

| WSS Developmental Domains | N | Pseudo R-Square (Nagelkerke) | Odds Ratio | | |
|---------------------------|------|------------------------------|--|---|---------------------------------------|
| | | | “Related Services” vs. Comparison Cohort | “Combined Services” vs. Comparison Cohort | “Special Class” vs. Comparison Cohort |
| Personal and Social | 1656 | 0.036 | 1.883* | 1.052 | 0.896 |
| Language and Literacy | 1656 | 0.05 | 1.205 | 1.034 | 0.825 |
| Mathematical Thinking | 1656 | 0.117 | 1.304 | 0.787 | 0.649* |

Source: Work Sampling System, 2002 through 2006.

*PD-7 category (The “Residential Facility” preschool setting excluded from all charts because no study participants were placed in such a setting.)

5.6.4.2 Regression Analysis: WSS, Comparing Third Grade Mean Teacher Ratings for Three PD-7 Categories

Exhibit 5-71 reports logistical regression findings for third grade preschool cohort students in the three preschool special education categories used for the analysis, comparing the likelihood of student development in each combination of preschool group comparisons shown in the exhibit to be rated As Expected by teachers in the three WSS developmental domains. As shown, the odds of receiving an As Expected developmental rating achieved statistical significance for only two sets of preschool group comparisons: the comparison of third graders who received preschool Related Services Only with those who received Combined Services ($b = 1.691$) and the comparison of third graders who received preschool Related Services Only with those who received preschool Special Class services ($b = 1.780$). Results in the “Personal and Social Development” domain indicate that third grade students who received preschool Related Services Only were 1.691 times as likely as those in the Combined Services category and 1.780 times as likely as those in the Special Class category to receive an As Expected developmental rating as a function of their receipt of preschool Related Services Only.

**EXHIBIT 5-71
REGRESSION ANALYSIS: WSS, COMPARING THIRD GRADE MEAN TEACHER
RATINGS FOR THREE PD-7 CATEGORIES**

| WSS Developmental Domains | N | Pseudo R-Square (Nagelkerke) | Coefficients (b) | | |
|---------------------------|------|------------------------------|--|--|---|
| | | | “Related Services” vs. “Combined Services” | “Related Services” vs. “Special Class” | “Combined Services” vs. “Special Class” |
| Personal and Social | 1023 | 0.066 | 1.691* | 1.780* | 1.052 |
| Language and Literacy | 1023 | 0.083 | 1.091 | 1.22 | 1.119 |
| Mathematical Thinking | 1023 | 0.183 | 1.495 | 1.523 | 1.019 |

Source: Work Sampling System, 2002 through 2006.

*PD-7 category (The “Residential Facility” preschool setting excluded from all charts because no study participants were placed in such a setting.)