ROCHESTER EARLY CHILDHOOD ASSESSMENT PARTNERSHIP
2007-2008 ELEVENTH ANNUAL REPORT

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STRENGTHENING SOCIAL AND EMOTIONAL HEALTH

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Financial support this past year was provided by the Rochester Community Foundation, Monroe County Department of Human Services, Rochester City School District, Rochester's Child Fund of the Rochester Area Community Foundation, the New York State Department of Education, United Way of Greater Rochester, and from private providers who purchased RECAP services.

Contributing program partners include Action for a Better Community's early education division, Annie's Ark, Inc., Catholic Diocese of Rochester, Charles Settlement House, Early Childhood Education Quality Council Centers, Family Resource Centers of Crestwood Children's Center, Florence S. Brown pre-k classrooms, Monroe Community College Child Care Center, Rochester Childfirst Network Family Child Care Satellites of Greater Rochester, Rochester Preschool-Parent Program, Rochester City School District programs and other Universal Prekindergarten Centers.

We thank teachers, parent group leaders, parent coordinators, directors, and administrators who work closely with thousands of students and their parents. Their personal attention to families contributes greatly to RECAP. Not only do these individuals contribute information, but they also share their cooperation and insight with our Assessment Team, which is vital to our ongoing process of system improvement.

We thank the thousands of parents who gave time from their busy schedules to share their thoughts and perceptions about their children and on other topics. Without parents RECAP would not be as complete or comprehensive.

We thank the RECAP Policy Advisory Group for helping us to keep the needs of children and all our partners foremost in our operations. We humbly thank our Policy Group for its valuable feedback and insights regarding the current goals and activities of our community's early childhood system.

We thank the other members of the RECAP A-Team, particularly Julia Guttman, Pat Dangler, and Diana Webb for their twice monthly wit and wisdom. Their insights make us all realize our first responsibility is to the children and families with whom we work.

We are deeply indebted to the creative communications staff of Children's Institute for making the final report as easy to read and look as nice as it does. We specifically thank Janis Cameron and Mary Maiolo for their gifted contributions to this report.

Last, we wish to thank and acknowledge Walt Gramiak. Walt retired this past summer and the remaining authors wish to acknowledge his many significant contributions, not only to this report, but to all of RECAP. An ethical man of few, but well reasoned words, we are truly indebted to him and will continue his legacy of accuracy, conscientiousness, and care.

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EXECUTIVE SUMMARY

The *Eleventh Annual RECAP Report*, as in the first ten annual reports, reveals a wealth of findings within Rochester's pre-k system, at the student, classroom, and parents and families levels. This year's data revealed, at both the child and classroom levels, additional results that suggest important policy implications.

This report confirms that in the area of pre-k classroom quality, as measured by the Early Childhood Environment Rating Scale-Revised (ECERS-R), Rochester continues to maintain high-quality status when compared to other studies in the United States and Western Europe. In 2007-08 ECERS-R mean score was 6.1; this compares to the average of 4.3 across other studies. More important, the information presented here continues to guide how present and future policies in pre-k can be enacted on a wide range of areas including literacy initiatives in pre-k, boy-girl gaps, and pre-k students with disabilities.

RECAP Major Findings for 2007-08:

Students:

- Over 94% of incoming pre-k pupils grow *at or above their expected developmental levels*. This replicates findings observed from many previous years.

- As we have observed in previous evaluations, pupils classified with disabilities (having gone through the formal Committee on Preschool Special Education (CPSE) process and diagnosed as a child with a disability), arrive at pre-k at lower levels than general education pupils, and exit pre-k at lower levels. But in a new finding, the academic skill sets of pre-k students with disabilities, on average, show gains at slower rates from the beginning to the end of the school year. While there are some areas where these pupils' growth rates are comparable, a definite gap exists and grows over time.

- For 2007-08, we observed a modest, one-year closing of the boy-girl gap. This is by no means a trend, but it is an encouraging sign.

- Another first year finding, RECAP pre-k students grow at higher rates in kindergarten than non-RECAP students, and finish the kindergarten year with higher achievement levels, as measured by the Child Observation Record (COR).

Classrooms:

- RECAP classrooms made modest gains in 2007-08, with a mean rating of 6.1 compared with 5.9 for 2006-2007 on the ECERS-R. This contrasts to the national average of 4.3 based on a 1 – 7 scale. RECAP classrooms continue to demonstrate exceptionally strong classroom quality.

- RECAP successfully instituted an ECERS-R exemption for those "ultra-high performing" classrooms that had averaged 6.50 or above on the ECERS-R for five consecutive years. RECAP used the freed-up resources to pilot the nationally-recognized comprehensive literacy classroom assessment – the Early Language and Literacy Classroom Observation (ELLCO) – so there were no additional costs for this literacy assessment pilot. An unexpected positive development, although just first year at this point, the non-exempt group, which constituted over 70% of all classrooms, appeared to have been inspired by this development and demonstrated statistically significant growth over previous years.

- RECAP successfully used the, ELLCO, on 29 classrooms. Not surprisingly, we found that classrooms with high quality classrooms based on the ECERS-R also displayed comparable excellence in language and literacy classroom activities as measured by the ELLCO.

Parents and Families:

This is the second year RECAP used comprehensively the parent completed Family Involvement Questionnaire (FIQ), which was developed by researchers at the University of Pennsylvania and validated by RECAP. For the past two years, parents reported greatest involvement in the home environment, the least involvement in the classroom and moderate involvement with parent-teacher communications.

INTRODUCTION TO RECAP

The Rochester Early Childhood Assessment Partnership (RECAP) began in 1992 as a collaboration of the Rochester Area Community Foundation, Rochester City School District and Children's Institute. Since its inception, RECAP's overall guiding tenet has been to promote and ensure quality prekindergarten classroom experiences with its integrated data system. In addition to providing the data system to enhance children's, teachers' and systems' performance, understanding the effectiveness of pre-k programs has played a central part of RECAP. Furthermore, using data to inform and drive policy has been a pivotal force in the RECAP experience. Throughout its history, RECAP has worked with many partners: foundations, local government, and early education teachers at multiple schools and other community-based organizations.

Each year, RECAP provides important program activities, such as:

- Teacher training on the use of child-assessment questionnaires and interpretation of the results
- Efficient and user-friendly data collection and feedback reports, with reports looped back to teachers and directors
- Observer training on fidelity implementation of the Early Childhood Environment Rating Scale-Revised (ECERS-R) and Early Language and Literacy Classroom Observation (ELLCO)
- Biweekly RECAP review and planning meetings
- Community presentations of RECAP results

These implementation efforts together integrate into a system that continuously strives to ensure and maintain quality pre-k classrooms, and in turn, improve student performance and outcomes.

Since 1999, RECAP has employed measures to assess program quality and student outcomes. Until this year, the ECERS-R has been used exclusively to study classroom quality. With the 2007-2008 school year, upon request of the RCSD Early Childhood Department, the Early Language and Literacy Classroom Observation (ELLCO) was introduced. A subset of RECAP teachers had their classrooms assessed with the ELLCO. This new program component is explained further later in the report. To measure student competencies and difficulties, both academic and social and emotional, the Child Observation Record (COR) and the Teacher-Child Rating Scale (T-CRS) were employed. To understand the parent's involvement and satisfaction with his or her child's pre-k classroom, two surveys were administered to parents, the Family Involvement Questionnaire (FIQ) and Early Childhood Parent Survey (ECPS).

The following table highlights the measures collected and the numbers assessed during the 2007-2008 school year.

Table 1 RECAP's Outcomes and Measures

RECAP 2007-2008			
Outcome	Measures	Numbers assessed in 2007-2008	Method
Classroom Environmental Quality	ECERS-R	106	Classroom Observation
Literacy Instruction	ELLCO	29	Classroom Observation
Academic, Motor and Social	Child Observation Record (COR)	1,876	Teacher Report
School, Emotional and Behavioral Adjustment	Teacher-Child Rating Scale (T-CRS)	1,912	Teacher Report
Parent Involvement	Family Involvement Questionnaire	742	Parent Survey
Parent Satisfaction	Early Childhood Parent Survey	731	Parent Survey

As in previous years, this year's Report of the 2007-2008 school year presents the major findings of the teachers' and students' outcomes on the measures. For example, the ECERS-R averages for RECAP classrooms as a whole are presented, while the classroom results for the individual schools and agencies are provided in the Technical Summary. Added to this year's report are the findings from the ELLCO assessment process, and the selection criteria for those teachers who participated. The detailed constructs of these measures are provided later on in the report.

In prior years, the RECAP reports included many statistical findings, such as interrater reliability on the ECERS-R and alpha reliability on the scales of the student-outcome measures; this year, these have been placed in the Technical Summary. Also, a detailed description of RECAP is now found in the Technical Summary.

PROGRAM QUALITY

Since 1999, RECAP has assessed environmental quality in prekindergarten classrooms using the ECERS. From the beginning, RECAP has found many classrooms to have demonstrated "good" quality by the ECERS. The last five years' experience has shown an overall average rating on the ECERS-R of "very good" (≈ 6.0) score for Rochester's prekindergarten classrooms.

The ECERS-R consists of 43 items organized into 7 subscales: Space and Furnishings, Personal Care Routines, Language-Reasoning, Activities, Interaction, Program Structure, and Parents and Staff.

Of special consideration for the 2007-2008 school year and in understanding the results presented here on the ECERS-R is the program change in which a group of RECAP teachers earned the opportunity to be exempt from the annual ECERS-R assessment. This group of RECAP teachers had consistently earned ECERS-R assessments indicating "near-to-excellent" classroom quality, i.e. at least an average of 6.50 over the last five years. Therefore, some of the tables and charts that follow will have results on those classrooms where the ECERS-R was not collected in the 2007-2008 year, *yet we included the 5-year average score for this select group*. Where we included the 5-year average data, we have titled those charts, "ECERS-R scores, exempt-teachers' history data included."

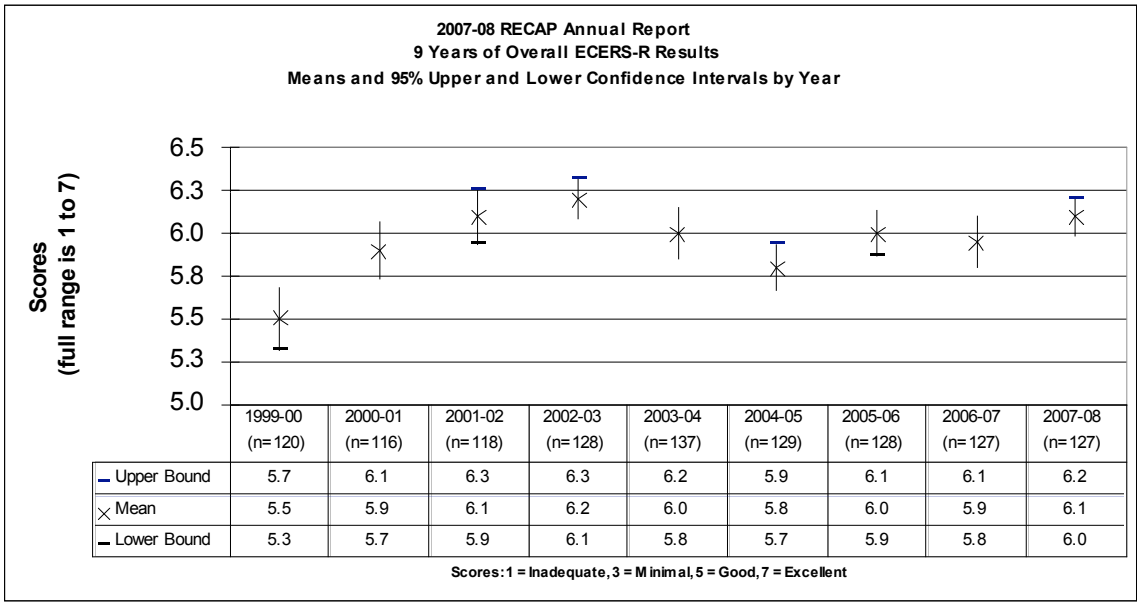
Similarly, there are tables and charts that reflect exclusively those ECERS-R scores that were collected in the 2007-08 school year. Again, those charts are titled as such.

In prior years' reports, we have included results on the statistical integrity of ECERS-R in this section, with the results from the tabulation of the interrater reliability of observers. This information was collected and computed for the 2007-2008 school year, and is now presented in the Technical Summary.

ECERS-R Aggregate Results for 1999-2008

The results from the 2007-2008 school year continue to show very strong and consistent classroom-quality performance, characteristic for the prekindergarten program here in Rochester, where the mean score was 6.1. The last nine years' experience has shown an overall average rating of 5.9 on the ECERS; this reflects a "very good" mean score for Rochester's prekindergarten classrooms. With this chart depicting the nine years of the RECAP system in place, we see that classroom quality has been integrated into the pre-k infrastructure, and teachers continue to implement extremely good to excellent standards in their classrooms.[1]

Figure 1 Nine Years of Overall ECERS-R Results



	1999-00 (n=120)	2000-01 (n=116)	2001-02 (n=118)	2002-03 (n=128)	2003-04 (n=137)	2004-05 (n=129)	2005-06 (n=128)	2006-07 (n=127)	2007-08 (n=127)
Upper Bound	5.7	6.1	6.3	6.3	6.2	5.9	6.1	6.1	6.2
Mean	5.5	5.9	6.1	6.2	6.0	5.8	6.0	5.9	6.1
Lower Bound	5.3	5.7	5.9	6.1	5.8	5.7	5.9	5.8	6.0

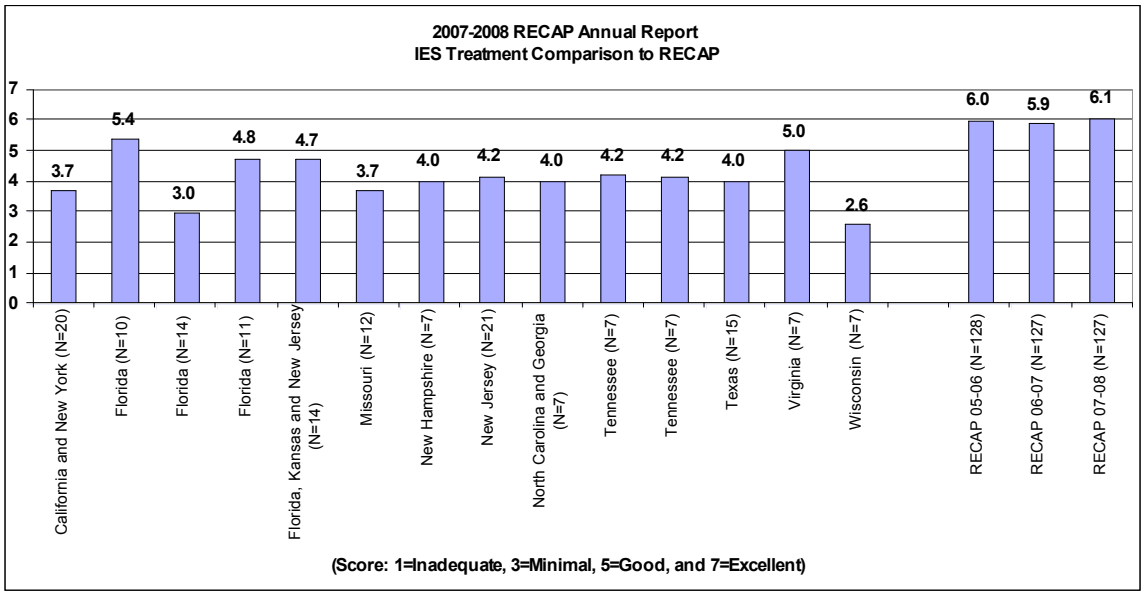
[1] In this year's Technical Summary, please find the figures "What is the Quality of Individual Classrooms in the 2007-2008 School Year.'

Comparing RECAP to Other Early Childhood Education Assessments Across the United States

RECAP continues to infuse the pre-k program in Rochester with the required information for pre-k teachers first to instill, and then to maintain, a range of good to excellent standards of quality. As a comparison to other programs' quality, we are reporting the findings from the Institute of Education Sciences "*Effects of Preschool Curriculum Programs on School Readiness*." In its report, IES presents the findings from its multi-site, multi-curricula evaluation, where different prekindergarten curricula were randomly assigned to treatment and control classrooms; ECERS-R assessments were conducted on these 14 curricula in 13 states in the 2003-2004 school year.

Presented here are the ECERS-R results where the data were collected in the spring, as in the RECAP model, on the treatment classrooms.[2] The findings from this IES report show variability across the treatment programs; the results range from 2.61 to 5.4. The last three years of the RECAP program shows a quality rating mean 6.0.

Figure 2 ECERS-R Overall Means by Area for the Last Five Years



[2] Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness* (NCER 2008-2009). Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. Washington, DC: U.S. Government Printing Office. This report is available for download on the IES website at http://ncer.ed.gov

ECERS-R Overall Means by Area, a Five-Year Historical Perspective

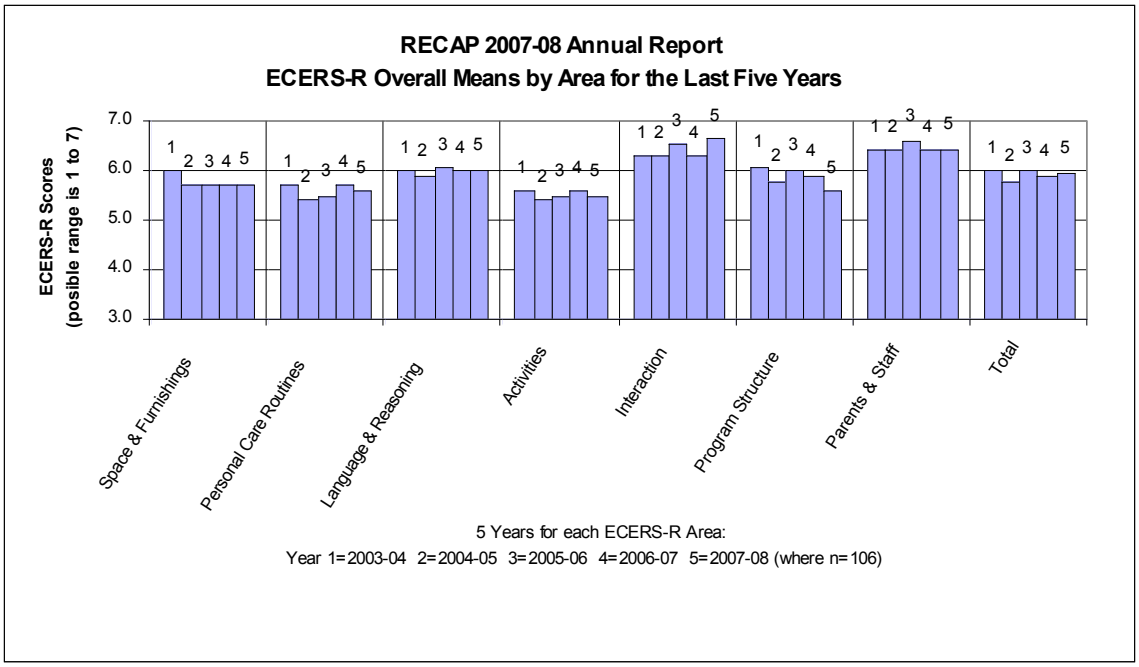
For the 2007-2008 school year, the mean ECERS-R score was 6.0 (this average does not reflect the exempted teachers' scores), across the 106 classrooms. In this chart we see trend stability across the seven areas, with some minor fluctuation in Interaction and Program Structure, which we attribute to random fluctuation.

Table 2 ECERS-R Overall Means by Area for the Last Five Years

ECERS-R Overall Means by Area for the Last Five Years									
		Area							
School Year	Year	Space & Furnishings	Personal Care Routines	Language-Reasoning	Activities	Interaction	Program Structure	Parents & Staff	Total/ Average
2003-04 (n=137)	1	6.0	5.7	6.0	5.6	6.3	6.1	6.4	6.0
2004-05 (n=129)	2	5.7	5.4	5.9	5.4	6.3	5.8	6.4	5.8
2005-06 (n=128)	3	5.7	5.5	6.1	5.5	6.5	6.0	6.6	6.0
2006-07 (n=127)	4	5.7	5.7	6.0	5.6	6.3	5.9	6.4	5.9
2007-08 (n=106)	5	5.7	5.6	6.0	5.5	6.6	5.6	6.4	6.0

As shown in the following table, this next graph, "ECERS-R Overall Means by Area for the Last Five Years," shows the stability within the seven assessed areas; again, we see that the RECAP classrooms are experiencing constancy and strength across the seven areas, where there is little change in each of the constructs. Indeed, three of the seven areas (Language-Reasoning, Interaction and Parents and Staff) have mean ratings of at least 6.0, showing consistent strength. The area, Parents and Staff, has a very high overall average. While the four areas of Activities, Space and Furnishings, Personal Care Routines and Program Structure are not as strong, they still have scores falling in the "good" range. The area showing the greatest challenge, however, has consistently been "Activities."

Figure 3 ECERS-R Overall Means by Area for the Last Five Years



ELLCO IN RECAP 2007-2008

What is the ELLCO?

The Early Language and Literacy Classroom Observation (ELLCO)[3] is designed to measure three areas of language and literacy activities in early education classroom settings. It has three components: 1) the Literacy Environment Checklist, 2) the Classroom Observation and Teacher Interview, and 3) the Literacy Activities Rating Scale. A brief description of each follows:

The Literacy Environment Checklist comprises five categories: book area (3 items), book selection (4 items), book use (5 items), writing materials (6 items), and writing around the room (7 items). These five categories provide detailed information as to the variety (fiction or nonfiction), quantity and condition of books in the classroom. (Smith et. al., 2002)

The second component of the ELLCO, the Classroom Observation and Teacher Interview, "includes 14 items for examining different aspects of classroom literacy practice" where these "items are conceptually grouped into two dimensions: 1) General Classroom Environment and 2) Language, Literacy, and Curriculum." (Smith et. al., 2002, p.13). A 5-point scale is used in the Classroom Observation, between a 1 = Deficient, and 5 = Exemplary. Following the Classroom Observation is the Teacher Interview, which is conducted to gain clarifying information to facilitate the scoring process (Smith et. al., 2002).

The third component of the ELLCO is the Literacy Activities Rating Scale; its purpose is "to collect information on the number of book reading sessions and writing activities that take place during the course of the classroom visit" (Smith et. al., 2002, p.19). This scale has five questions that collect information on the frequency of reading sessions, duration of reading, and the number of books read. The remaining questions address writing, and how the teacher incorporates writing in the classroom.

ELLCO Procedure

During the 2007-2008 school year, a group of extremely competent RECAP teachers earned the opportunity to be exempt from the annual ECERS-R assessment. This group of RECAP teachers had consistently earned ECERS-R assessments indicating very high classroom quality, having earned at least an average of 6.50 during the last five years. However, while these teachers were exempt from the annual ECERS-R assessment, they were the subjects of the ELLCO pilot.

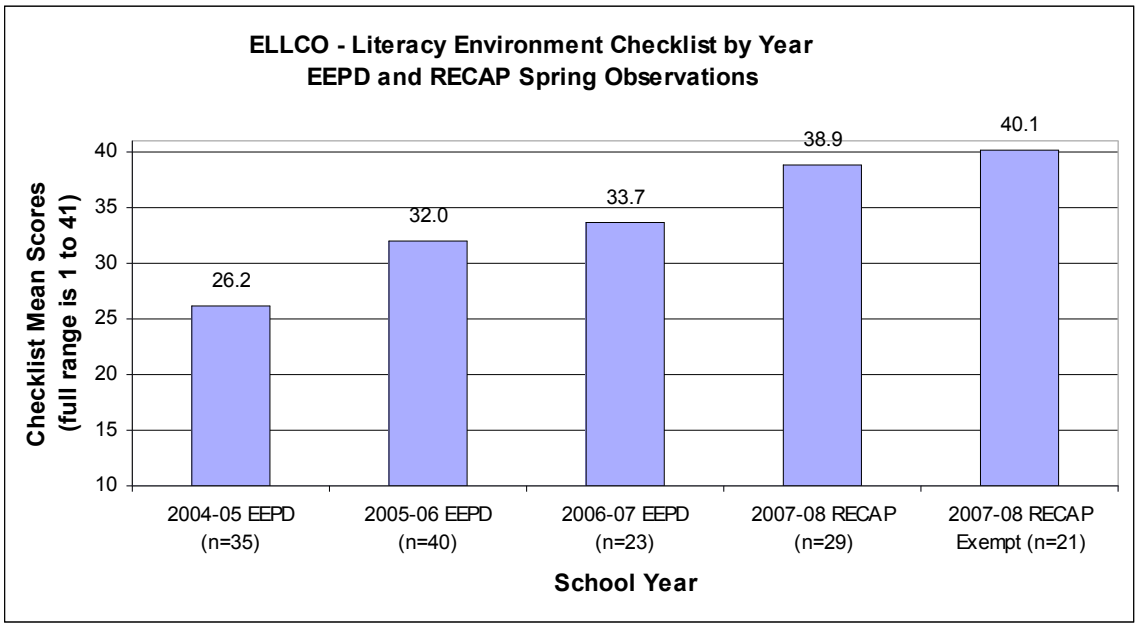
[3] Smith, M. W., Dickinson, D. K., & Sangeorge, A. (2002). *Early Language and Literacy Classroom Observation (ELLCO) Toolkit*. Baltimore, MD: Brookes Publishing Co., Inc.

In crafting this pilot of ELLCO, RECAP Assessment Team planned on available resources to conduct a total of 30 ELLCO observations, where it was anticipated that 15 teachers would meet the exemption criteria, and 15 would be selected randomly from the balance of the RECAP teacher pool. The RECAP Assessment Team was therefore surprised to find that there were actually 22 teachers who earned this ECERS-R exempt status (though one teacher was moved to another position, thereby resulting in 21 completed ELLCO assessments). Accordingly, this then reduced the randomly-selected number from 15 to 8.

ELLCO Results

While ELLCO is not new to Children's Institute, as it was used in the Early Education Professional Development (EEPD) grant funded by the federal Department of Education, this was its first year in RECAP. The EEPD prekindergarten teachers were participants in an intensive mentoring program, where they received one-on-one mentoring on literacy instruction, classroom quality standards, and children's development. To provide perspective and a context, the ELLCO scores presented in this report on the EEPD prekindergarten teachers were collected during three school years, 2004-2005, 2005-2006, and 2006-2007.

Figure 4 ELLCO – Literacy Environment Checklist by Year



In figure 4, we see that the pilot sample of RECAP teachers has exemplary performance on the subscale, Literacy Environment Checklist. The group of exempt teachers, a subset of the total sample of 29, performed at exceptional levels with a mean score of 40.1 with 41 as the highest possible score.

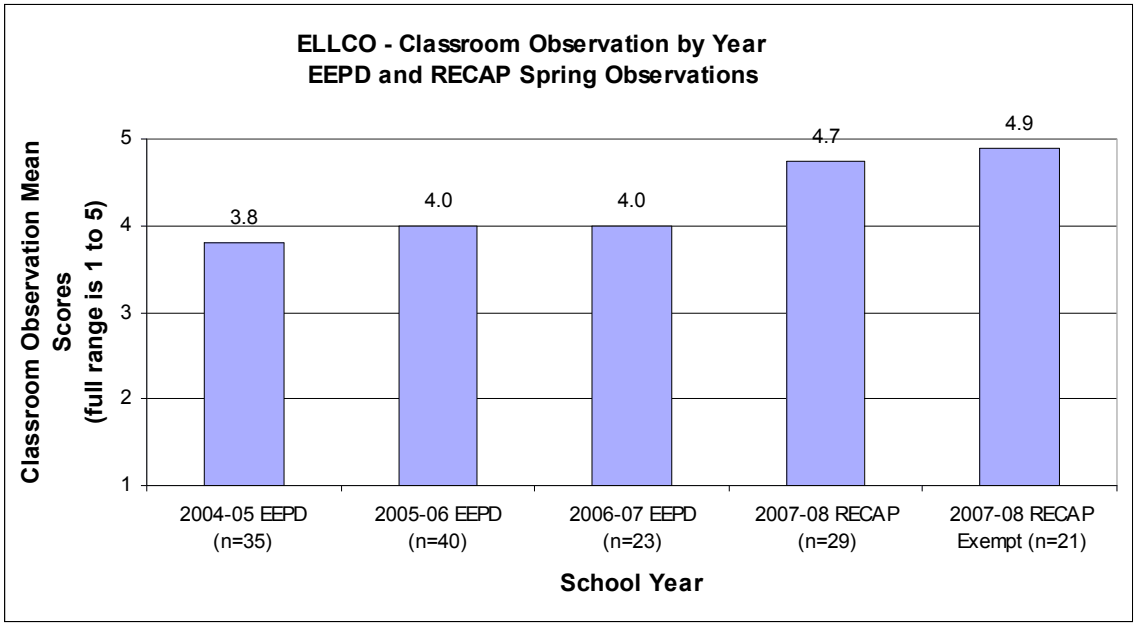
Not unexpectedly, in the RECAP 2007-2008 school year, the ELLCO results of the select RECAP teachers showed very strong, exemplary performance. As shown in Table 3, the performance of the RECAP teachers was commendable on all three of the scales.

Table 3 ELLCO Scores for Exempt Teachers and All Teachers

2007-08 RECAP Annual Report				
ELLCO Scores for Exempt Teachers and All Teachers				
Subscale	**Exempt Teachers** (n = 21)		**All Teachers** (n = 29)	
	mean	**median**	**mean**	**median**
Literacy Environment Checklist (range 1 to 41)	40.14	41.00	38.86	40.00
Classroom Observation (range 1 to 5)	4.90	5.00	4.74	5.00
Literacy Activities Rating Scale (range 1 to 11)	9.19	10.00	8.90	9.00

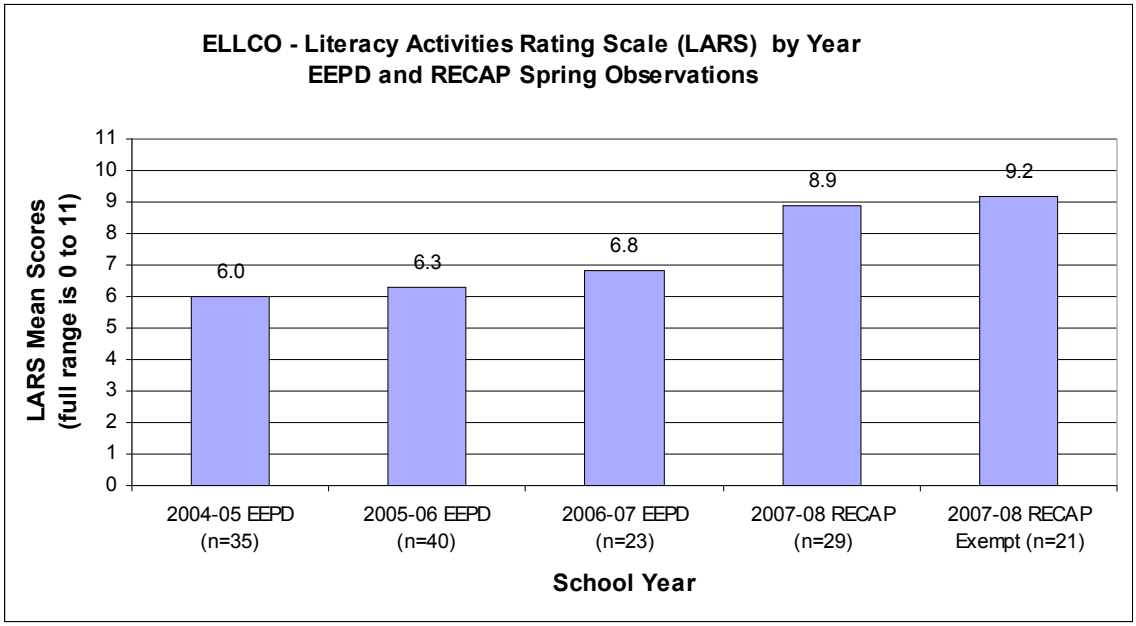
In Figure 5 representing the Classroom Observation, we see another strong performance by the pilot RECAP teachers. Exempt teachers had extremely high performance with a mean score of 4.9, and again, the median was the highest possible at 5.0.

Figure 5 ELLCO Classroom Observation by Year



In the Literacy Activities Rating Scale, we see that the RECAP teachers demonstrated a very strong performance; in this scale, the exempt teachers again perform commendably with a mean of 9.2 and a median at 10.0, which approaches the perfect score of 11.0.

Figure 6 ELLCO-Literacy Activities Rating Scale by Year



STUDENT PERFORMANCE

Child Observation Record (COR)

RECAP uses the Child Observation Record to measure academic, social and motor competencies during the child's prekindergarten year. The COR was developed by High/Scope, a premier center for developing and evaluating materials to assess young children. Teachers use the COR to record their observations of their students' functioning on 23 items, each on a 5-point developmentally sequenced scale where each point represents a level of children's growth along the development continuum.[4]

RECAP administers the COR in the fall and spring. By administering the COR at these two times, the growth of the individual child is assessed and where a problem area exists, teachers can address it in the classroom. Furthermore, by aggregating the data, the growth rates can be analyzed by gender, race, and for the entire RECAP system. Growth rates are also studied based on risk factors, as identified by the measure. COR analyses are an integral part of understanding prekindergarten effectiveness, and they are presented in this section, as well as in the Technical Summary.

Teachers complete the COR forms on their students, and Children's Institute tabulates, processes and prints its COR 23 Child-Summary Reports. These reports show the average and percentile scores in the four skill areas. The individual items in their respective skill areas are as follows:

- Initiative and social:
  - making choices and plans
  - solving problems with materials
  - initiating play
  - taking care of personal needs
  - relating to adults
  - relating to other children
  - resolving interpersonal conflict
  - understanding and expressing feelings

- Movement and music:
  - moving in various ways
  - moving with objects
  - feeling and expressing steady beat
  - moving to music
  - singing

[4] Hightower, A.D., Gramiak, W., Metzger, A., and Forbes-Jones, E. (2006), *A Factor Analysis of the 32-Item Child Observation Record (COR)*. Children's Institute, Technical Report No. T06-0001.)

- Language and literacy:
  showing awareness of sounds in words
  using letter names and sounds
  reading
  writing
  counting

- Math and science:
  comparing properties
  identifying position and direction
  identifying sequence change and causality
  identifying materials and properties
  identifying natural and living things

The following text and accompanying charts depict the COR growth of the RECAP students, as an entire cohort, during the 2007-2008 school year; in the Technical Summary additional analyses are presented: the analyses of gender and subscale, prevalence of socio-emotional risk factors, initial risk status, and the developmental-adjustment analyses expected by aging alone.

In Table 4, the COR Fall 2007 results are presented, with the means reported for each of the academic subscales. Also shown are the COR data change scores, where we observe that children are gaining significantly during their time in prekindergarten. Overall, at time 1, the mean scores range from 2.24 to 2.93, where the mean change scores are in a range within 1.04 to 1.33.

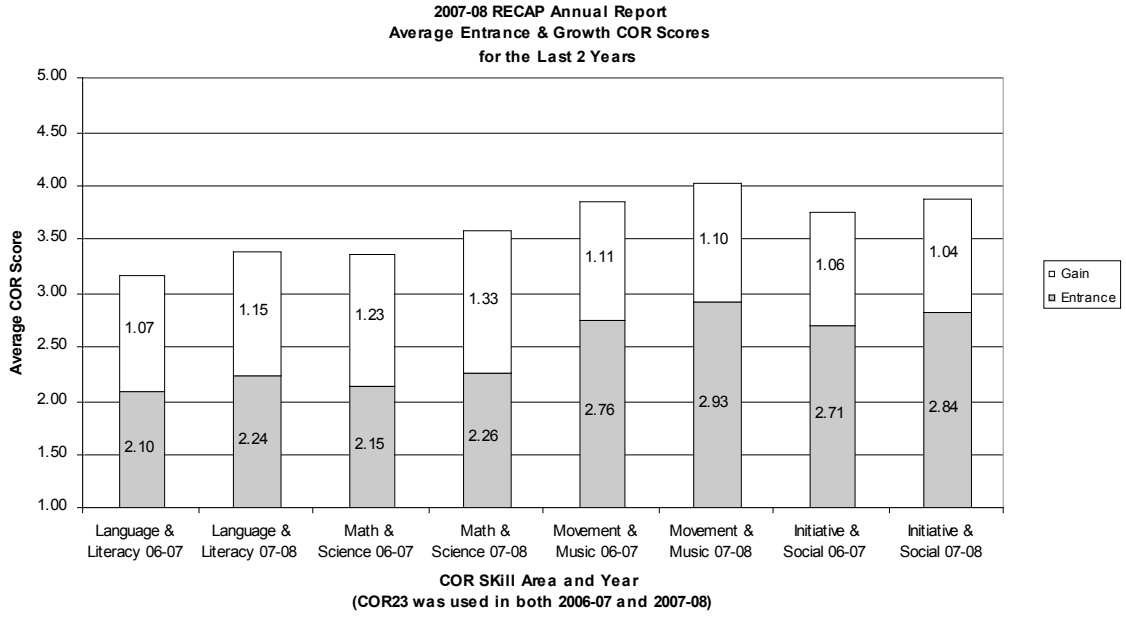
Table 4 2007-08 Time 1 COR and COR Changes

Table 4						
2007-08 RECAP Annual Report						
2007-08 Time 1 COR and COR Changes[1]						
	Time 1			**Change Scores[2]**		
Skill Area	**N**	**Mean**	**Std. Dev.**	**N**	**Mean**	**Std. Dev.**
Initiative & Social	2064	2.84	0.81	1396	1.04	0.69
Movement & Music	2062	2.93	0.84	1395	1.10	0.79
Language & Literacy	2060	2.24	0.82	1395	1.15	0.77
Math & Science	2058	2.26	0.92	1393	1.33	0.93

Notes:
[1] These data include children of all ages in RECAP.
[2] Change scores presented here only include students who had complete fall and spring measures from the same classroom/teacher. There were far more pupils who actually attended the RECAP-affiliated programs.

The growth in COR scores, by subscale area, is presented in Figure 7 below. This figure demonstrates that in both the 2006-07 and 2007-08 school years, initial baseline data collected in the fall, and data collected seven months later in the spring, are comparable; the COR growth scores are also. For the 2007-2008 RECAP cohort, students grew at least 1.04 as measured by the COR in the initiative and social skill area, and as much as 1.33 growth in the math and science skill area.[5]

Figure 7 Average Entrance and Growth COR Scores for the Last 2 years



[5] In the Technical Summary, "COR expectations by year" to percent of children results compared to percent of children performing above, at, and lower than expected is detailed.

Teacher-Child Rating Scale (T-CRS)

The Teacher-Child Rating Scale consists of 32 items assessing both positive and negative aspects of a child's socio-emotional adjustment. Items are grouped into four empirically derived scales assessing the following: 1) Task Orientation, 2) Behavior Control, 3) Assertiveness, and 4) Peer Social Skills.

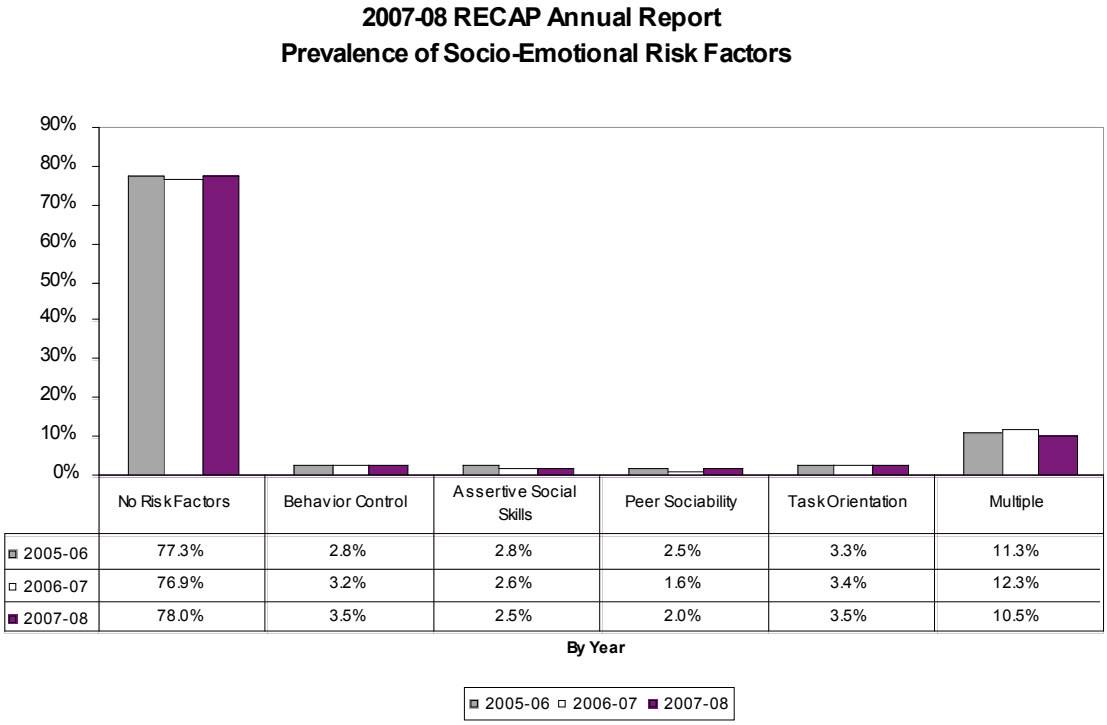
The T-CRS has multiple uses, including as a screening measure, as part of an individual assessment battery, and as a pre-and-post research or evaluation measure. With RECAP, it also serves as the tool used to track population trends, changes, and effects of prekindergarten programs in the urban-poor setting of Rochester.

Table 5 Number of students with socio-emotional risk factors at the beginning of the school year, time 1.

Table 5				
Number of Students with Socio-Emotional Risk Factors at Time 1				
	2006-07		**2007-08**	
	Frequency	**Percentage***	**Frequency**	**Percentage***
No risk factors	1,704	76.9%	1,621	78.0 %
Behavior-control risk only	72	3.2 %	73	3.5 %
Assertiveness risk only	57	2.6 %	51	2.5 %
Peer-social risk only	35	1.6 %	42	2.0 %
Task-orientation risk only	75	3.4 %	72	2.6 %
Multiple-risk factors	273	12.3 %	219	10.5 %
Number of valid responses	2,216	-	2,078	-
Total RECAP students	2,694	-	2,732	-
Notes: * Percentage is calculated from number of valid responses.				

For the 2,732 students entering the RECAP system for 2007-2008, the T-CRS was completed on 2,078 students. In 2006-2007, there were 12.3% students who entered preschool with multiple socio-emotional risk factors (defined as two or more risk factors); this dropped slightly to 10.5% for the 2007-2008. The 2006-2007 cohort experienced a single-risk combined rate of 10.8 percent, and the 2007-2008 RECAP group experienced a very comparable single-risk combined rate of 10.6 percent. The bar chart (Figure 8) on the following page shows the three-year experience, which shows consistency across the three years as well as in the six categories.

Figure 8 Prevalence of Socio-Emotional Risk Factors



	No Risk Factors	Behavior Control	Assertive Social Skills	Peer Sociability	Task Orientation	Multiple
2005-06	77.3%	2.8%	2.8%	2.5%	3.3%	11.3%
2006-07	76.9%	3.2%	2.6%	1.6%	3.4%	12.3%
2007-08	78.0%	3.5%	2.5%	2.0%	3.5%	10.5%

Figures 9 and 10 show initial COR scores by risk factors. Figures 11 and 12 show the average COR growth, by T-CRS risk factor(s). The findings on these COR/T-CRS analyses parallel prior years. Where no risk factors exist, as measured by the T-CRS, the average COR growth over a 7-month period is 1.00, 1.15, 1.12 and 1.28 on the subscales of initiative & social, movement & music, language & literacy, and math & science, respectively.

The COR-growth story for children with T-CRS risk factors changes considerably. Risk factors exist when a teacher indicates strong agreement on the negative items associated with the respective primary scale; please see Table 6, Teacher-Child Rating Scale, Risk Factors and the associated negative items.

Table 6 T-CRS Risk Factors and associated negative items

Table 6	
Teacher-Child Rating Scale, Risk Factors and associated negative items	
Primary Scale	**Risk-Factor Items**
Task orientation	Has difficulty following directions. Underachieving (not working to ability). Poorly motivated to achieve. Has poor concentration, limited attention span
Behavior control	Disturbs others while they are working. Overly aggressive to peers (fights). Defiant, obstinate, stubborn. Disruptive in class.
Assertiveness	Withdrawn. Anxious, worried. Nervous, frightened, tense. Does not express feelings.
Peer Sociability	Lacks social skills with peers. Other children shun or avoid this child. Has trouble interacting with peers. Other children dislike this child.

COR scores, where students present with a T-CRS Risk Factor, show slower growth rates, *except for the risk factor, assertiveness.* For children who are presenting with the items associated for risk on the assertiveness scale, they show *more growth* than children who don't present with any risk factors. In all four subscales, their growth is stronger than that of their peers. This is a repeated and consistent finding.

Students who present with either risk factor of behavior control or task orientation show the lowest growth rates than their peers; for the students with behavior control as a single risk factor, their average growth rate is 0.93, 0.95, 0.99, and 1.10 on the scales of initiative & social, movement & music, language & literacy, and math & science, respectively. For the students presenting with task orientation as a risk factor, the COR growth rate on the scales, on average, is 0.91 in initiative & social, 1.18 in movement & music, 0.93 in language & literacy, and 1.01 in math & science. This shows that in general, social and emotional risk factors impede performance, as measured by the COR.

Figure 9 2007-2008 Average Initial COR Scores

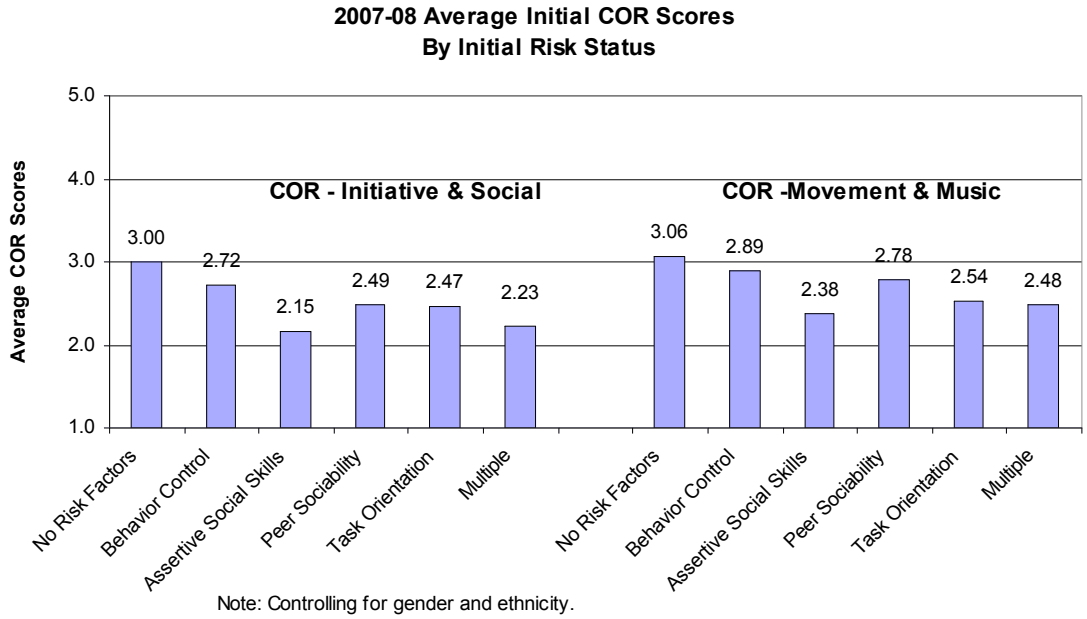


Figure 10 2007-2008 Average Initial COR Scores

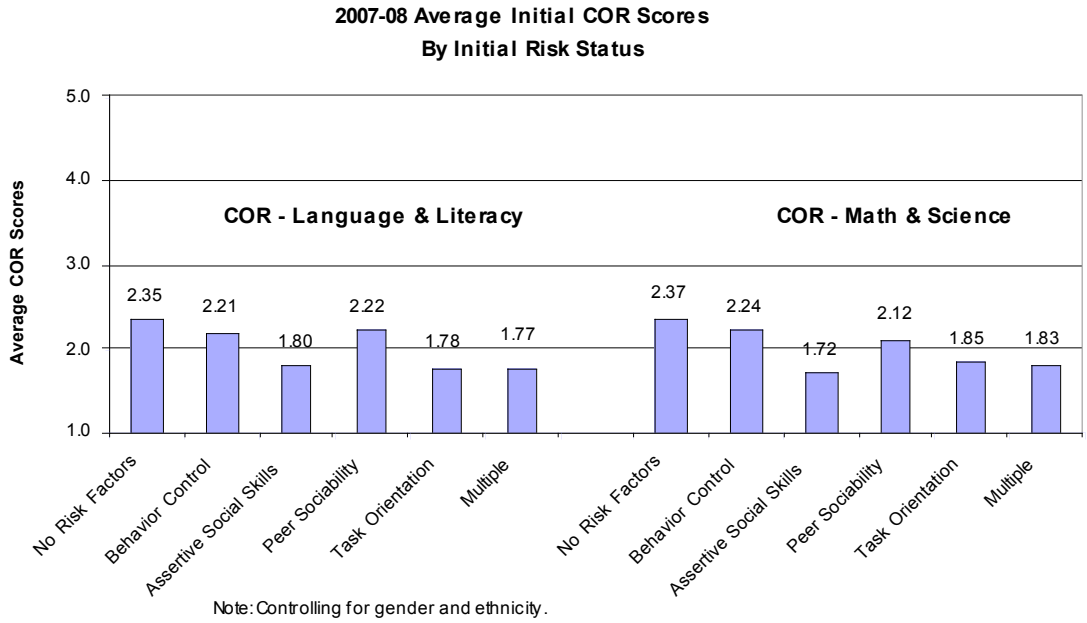


Figure 11 2007-2008 Average COR Growth by Initial Risk Status

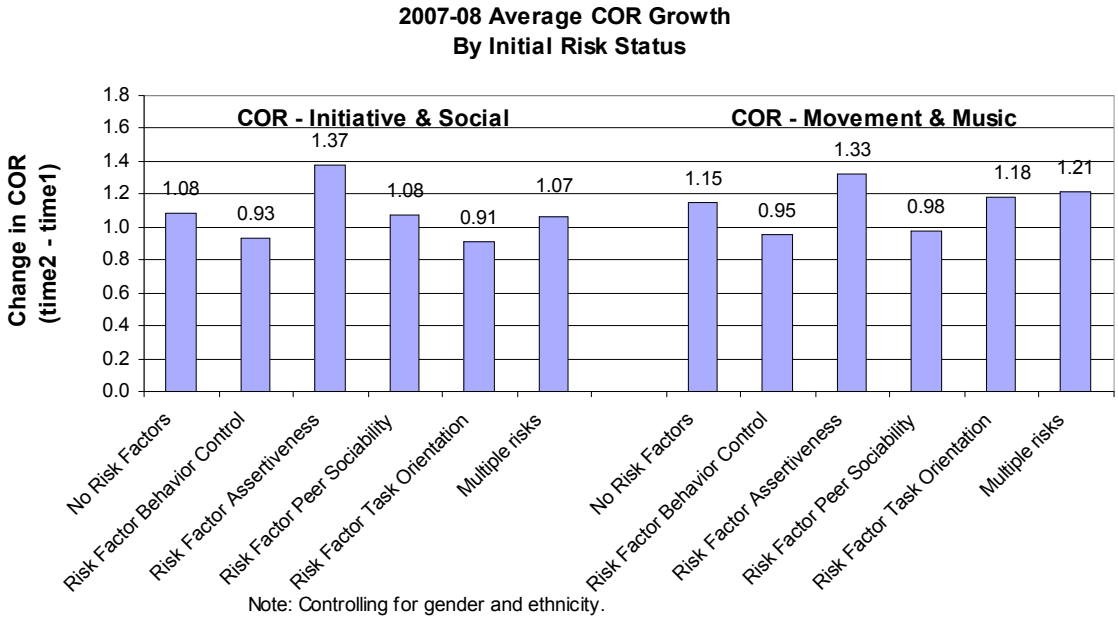
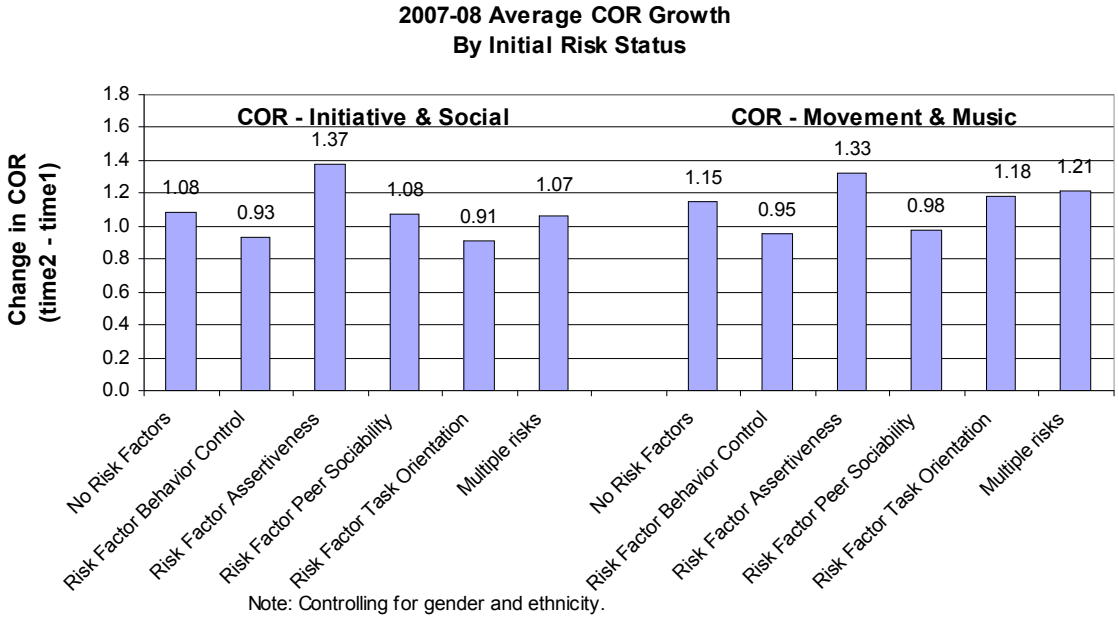


Figure 12 2007-2008 Average COR Growth by Initial Risk Status



COR Follow-Up Kindergarten Analyses

For this Eleventh Annual Report, the analyses on the RECAP system's effects on kindergarten students' performance were replicated from prior years' analyses. For this section of the report, however, we are highlighting two of these analyses: the marginal-mean score analyses of RCSD kindergarten students where the RECAP cohort was compared to the non-RECAP cohort; and the follow-up kindergarten analyses where we examine the COR growth rates of children after their RECAP prekindergarten year, followed by their summer experience, and then their kindergarten year.

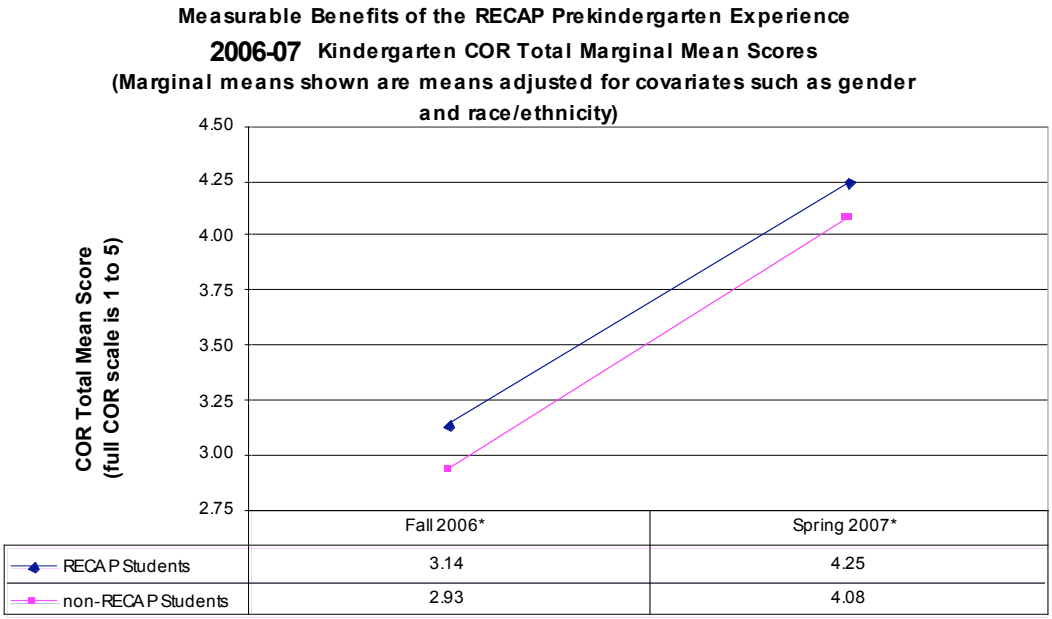
For the complete results, such as the COR subscales analyses on the fall and spring kindergarten students' performance, and the growth on the COR total analyses, please refer to the Technical Summary.

Marginal Mean Scores Analyses

For last year's RECAP annual report, we compared kindergarten students who had attended RECAP classrooms to those who had not. All of the students for whom the COR measure was collected in both the fall and spring of their RCSD kindergarten year were included in the analyses. These analyses were conducted again on the 2006-2007 RECAP cohort, who were in their kindergarten year in 2007-2008. Please see Figure 13 and Figure 14 for the marginal-mean growth comparing the RECAP cohort group to their non-RECAP peer group for the two years. (Marginal means are means adjusted for covariates such as gender and race/ethnicity.)

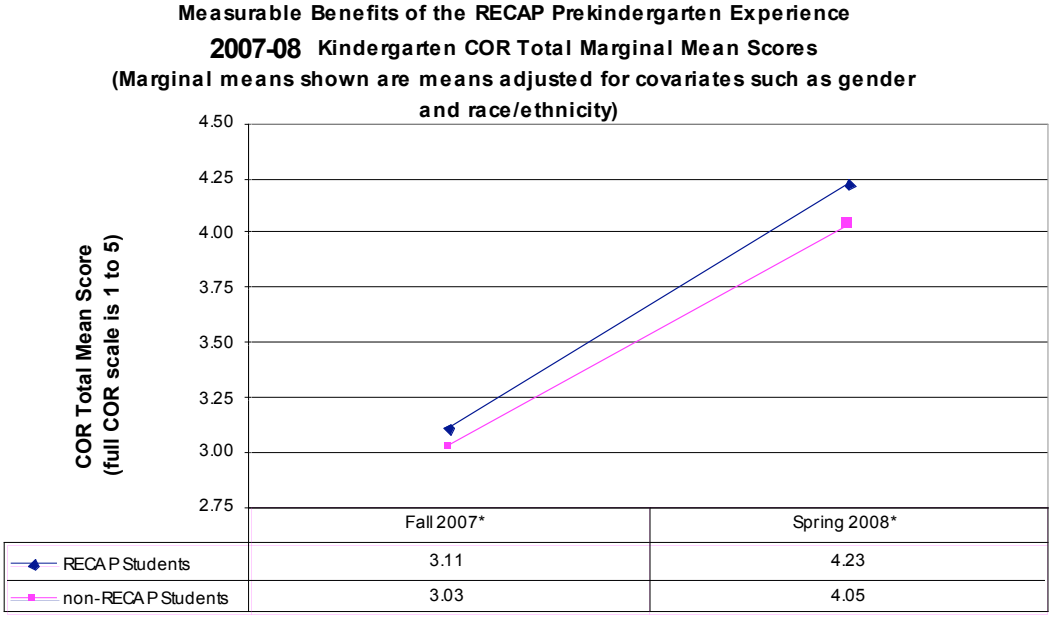
In Figures 13 and 14, we see that the marginal mean scores, as measured by the COR, are higher for RECAP students; this occurs at fall and spring. It also occurs for two successive years, both for the 2005-2006 RECAP cohort, and the 2006-2007 RECAP cohort. In the Figure 13 showing the 2006-2007 kindergarten experience, we see that the growth for the non-RECAP cohort is slightly higher with a marginal mean change score of 1.15. The marginal mean score for the 2006-2007 RECAP, however, favors the RECAP students. Indeed, for the 2006-2007 RECAP cohort, it appears as though their gains in kindergarten are actually increasing at an increasing rate, as compared to the non-RECAP cohort. Future RECAP cohort analyses will address whether this is a new trend or just a random fluctuation.

Figure 13 2006-2007 Kindergarten COR Total Marginal Mean Scores



RECAP Students: N=1,070 in fall, 1,033 In spring
non-RECAP Students: N=968 in fall, 996 in spring
Note: * Signifies differences between RECAP and Non-RECAP groups significant at Pr(t) < .05

Figure 14 2007-2008 Kindergarten COR Total Marginal Mean Scores



RECAP Students: N=1,128 in fall, 1,088 In spring
non-RECAP Students: N=1225 in fall, 1245 in spring
Note: * Signifies differences between RECAP and Non-RECAP groups significant at Pr(t) < .05

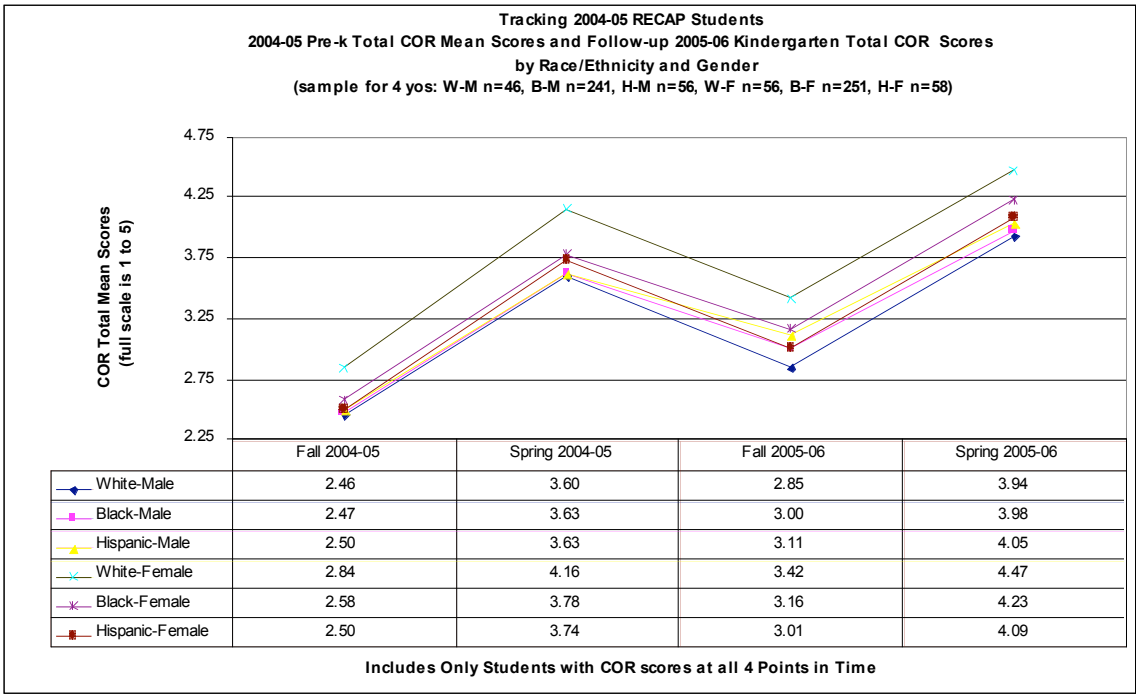
Tracking of Three RECAP Cohorts in RCSD Kindergarten

In this section, we present the tracking charts that depict the COR-growth prekindergarten experience, the summer-months effect, and in turn the COR-growth experience in the students' kindergarten year. Three RECAP cohorts are studied: 2004-2005, 2005-2006, and 2006-2007.

The trend that emerges is, on average, all prekindergarten students, regardless of their ethnicity or gender, experience growth in very similar, almost identical, patterns. This even holds during the summer-months drop where the students' growth patterns decline, again, regardless of ethnicity or gender. Then, in kindergarten, we see that COR performance, on average, continues to grow again. This pattern holds true for all three RECAP cohorts.

Of particular note is the finding that for the RECAP cohort year 2006-2007, the Hispanic-female gender-ethnic group is performing higher than any other gender-ethnic group. As this differs from prior years' findings, we will monitor this. At present, however, we are attributing this to random fluctuation.

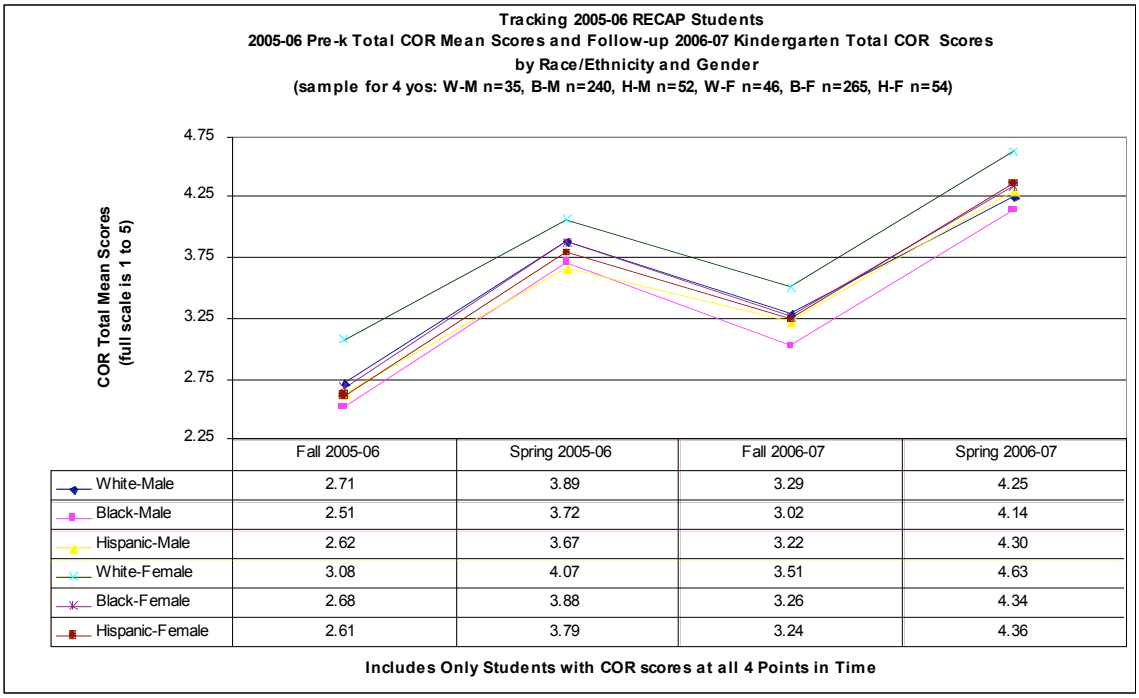
Figure 15 2004-05 Pre-k Total COR Mean Scores and Follow-up 2005-06 Kindergarten Total COR Scores



	Fall 2004-05	Spring 2004-05	Fall 2005-06	Spring 2005-06
White-Male	2.46	3.60	2.85	3.94
Black-Male	2.47	3.63	3.00	3.98
Hispanic-Male	2.50	3.63	3.11	4.05
White-Female	2.84	4.16	3.42	4.47
Black-Female	2.58	3.78	3.16	4.23
Hispanic-Female	2.50	3.74	3.01	4.09

Includes Only Students with COR scores at all 4 Points in Time

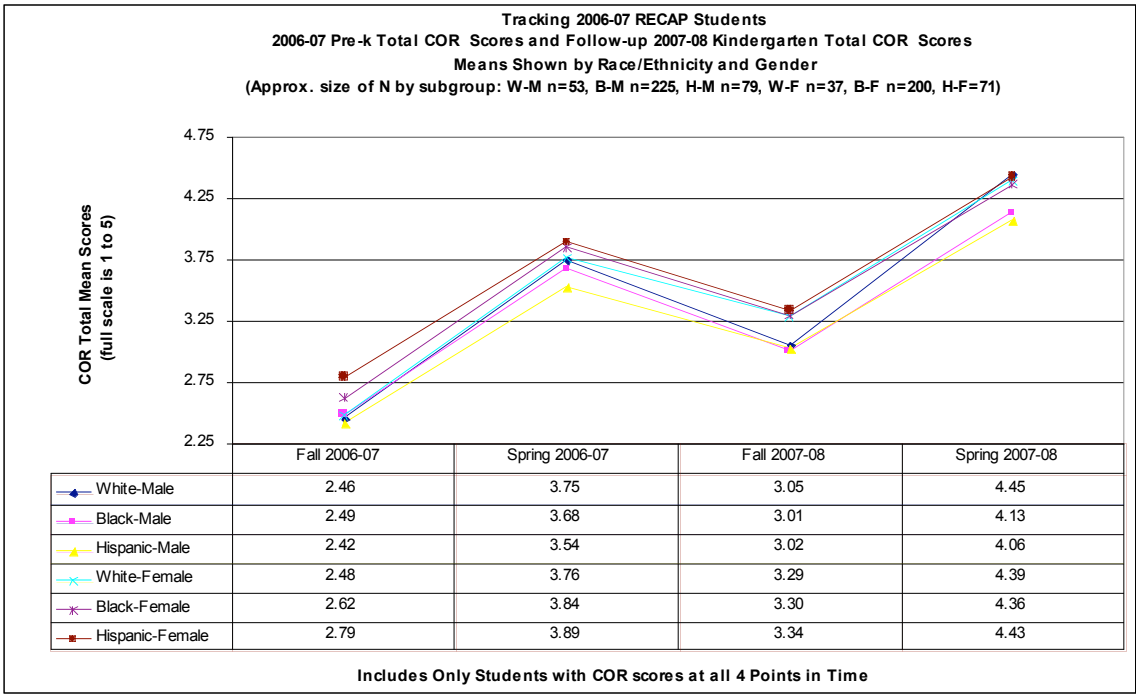
Figure 16 2005-06 Pre-k Total COR Mean Scores and Follow-up 2006-07 Kindergarten Total COR Scores



	Fall 2005-06	Spring 2005-06	Fall 2006-07	Spring 2006-07
White-Male	2.71	3.89	3.29	4.25
Black-Male	2.51	3.72	3.02	4.14
Hispanic-Male	2.62	3.67	3.22	4.30
White-Female	3.08	4.07	3.51	4.63
Black-Female	2.68	3.88	3.26	4.34
Hispanic-Female	2.61	3.79	3.24	4.36

Includes Only Students with COR scores at all 4 Points in Time

Figure 17 2006-07 Pre-k Total COR Mean Scores and Follow-up 2007-08 Kindergarten Total COR Scores



	Fall 2006-07	Spring 2006-07	Fall 2007-08	Spring 2007-08
White-Male	2.46	3.75	3.05	4.45
Black-Male	2.49	3.68	3.01	4.13
Hispanic-Male	2.42	3.54	3.02	4.06
White-Female	2.48	3.76	3.29	4.39
Black-Female	2.62	3.84	3.30	4.36
Hispanic-Female	2.79	3.89	3.34	4.43

Recommendations

- Determine the developmental-growth rate for an urban population of 4-year-old children who are not attending a formal prekindergarten program.

- Survey the parents/guardians of children who attended prekindergarten programs and of those who did not, to determine the level and extent of formal instructional programs in the children's lives.

PRE-K CHILDREN WITH DISABILITIES

Trends of Children with Disabilities

In this section, we report on patterns of the prekindergarten students who had received special services since 2002-2003. The Rochester City School District defines a child with disabilities as a child needing one or more special service(s), per NY state regulations, such as speech and language therapy, occupational therapy, physical therapy, etc.

We also present our findings from analyses that compare growth-rate differences of children with disabilities to children not so identified. The growth-rate analyses answers the following question: Are the growth rates the same for both groups of students?

Understanding the academic performance of prekindergarten children with disabilities in comparison to children who do not have disabilities allows us to assess whether current levels of services are sufficient for children with disabilities, whether there is an additional need to understand how children with disabilities grow with traditional curricula, and whether their learning could be augmented further in order for them to stay on track with their cohort.

The Technical Summary contains a full report on pre-k children with disabilities includes discussion on the types of Primary Services provided to students, the program type for the primary related service, and the demographic information of both student groups.

Table 7 Percentage of students in RECAP programs that required one or more special services by cohort.

Table 7			
RECAP 2007-08 Annual Report			
Pre-k Students with Disabilities Data*			
Number of Students in RECAP Programs That Required One or More Special Services by Cohort			
Includes All Ages			
Students in RECAP Programs			
RECAP Cohort	**# with RCSD ID Known**	**# Identified Requiring 1 or more Special Services**	**% Requiring 1 or more Special Services**
2002-03	2,109	206	9.8%
2003-04	1,759	216	12.3 %
2004-05	2,009	259	12.9 %
2005-06	1,825	256	14.0 %
2006-07	1,733	286	16.5 %
2007-08	1,904	326	17.1 %
Notes: * Data provided by the RCSD Research & Evaluation Group. % Denotes percentage of #RECAP Students Requiring Special Services divided by total #RECAP students with a RCSD ID identified.			

Demographics

The results in Table 8 demonstrate that no race or ethnic group was consistently over identified this year. However, boys were identified 2-to-1 more frequently than girls. These results are similar to last year's.

Table 8 Demographic Information for 2007-2008 RECAP Students Receiving Special Services

Table 8					
2007-08 RECAP Annual Report					
2007-08 RECAP Pre-k Students with Disabilities Data					
Demographic Information for 2007-08 RECAP Students Receiving 1 or More Special Services					
Includes Only 3- and 4-Year-olds					
	Special Services (%)[1]		**No Special Services (%)[1]**		
Race/Ethnicity[2]	**Boys[3]**	**Girls**	**Boys[3]**	**Girls**	**Total**
White	28 (13%)	13 (13%)	97 (13%)	89 (12%)	227 (12%)
Black	114 (53%)	69 (71%)	457 (62%)	451 (58%)	1,091 (60%)
Hispanic	60 (28%)	15 (16%)	138 (19%)	179 (23%)	392 (22%)
Other	12 (6%)	1 (1%)	40 (5%)	54 (7%)	107 (6%)
Total	214 (12%)	98 (5%)	732 (40%)	773 (43%)	1,818

Notes: [1] Signifies percentage of column totals in parenthesis.
[2] Signifies Chi-square tests on race/ethnicity with special services was not significant. (Pearson $\chi^2 = 3.2$, $p>.05$).
[3] Signifies Chi-square test for gender with special services was significant (Pearson $\chi^2 = 46.4$, $p<.05$).

MANOVA Growth Rate Findings

For this report, we examined differences in the academic growth rates measured by the four COR subscales for children who are classified with a disability compared to general education students. We also assessed whether the services sufficiently augmented the curriculum and learning processes so that the children could stay on track with their peers.

To assess differences, a Multivariate Analysis of Variance (MANOVA) was conducted comparing the two groups of students, for both the 2006-2007 and 2007-2008 school years. MANOVAs are used to test for differences when there is more than one dependent variable. In these analyses, the four subscales of the COR were used.

Group size for children with complete data in 2006-2007 was 1,170 (with 205 children receiving one or more services); for the 2007-2008 sample, 1,191 (with 219 children receiving one or more services). Table 9 on the following page presents the findings for two years' cohorts, and includes the fall mean scores on the four COR subscales (language, math, movement, and social); the spring assessment mean scores, and the growth-rate changes from fall to spring.

These results show that students classified with a disability, as measured by the COR, demonstrate a lower performance on all four of the subscales. While they show academic growth, it is at a statistically significant slower rate. Significant growth rate differences were found on all four of the subscales of the COR of the 2006-2007 sample and differences between the two groups were also found to be statistically significant on the two academic subscales (math and language) of the COR in the 2007-2008 sample.

The significant differences on the academic scales for both years' cohorts inform us that, indeed, children who are classified with a disability are progressing at a slower academic rate. The slowest rate for the RECAP cohort 2006-2007 is in the language skill area, followed by the social skill area. The two slowest growing areas for the RECAP cohort 2007-2008 are also social and language skills, followed by math skills.

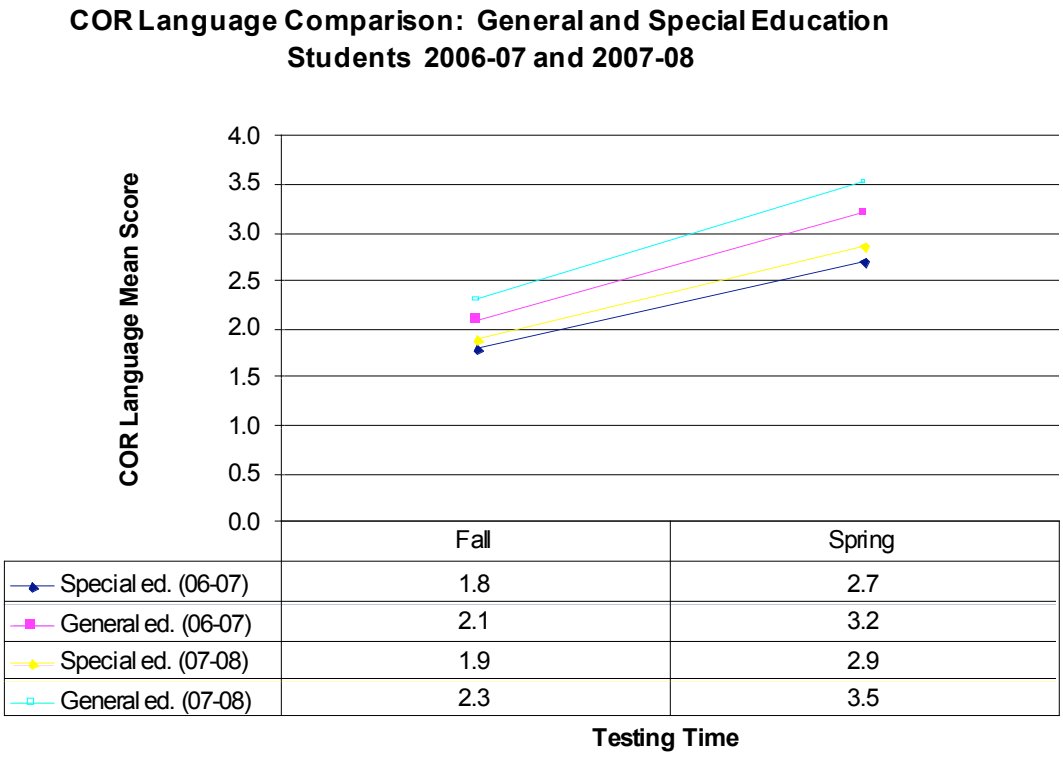
Table 9 MANOVA Growth-Rate Findings

Table 9
RECAP 2007-08 Annual Report
Pre-k Students with Disabilities Data
MANOVA Growth-Rate Findings
Includes All Ages

		2006-07			2007-08		
Time of Test	COR Subscale	Students classified with a disability	General education students	F value	Students classified with a disability	General education students	F value
Fall Time 1	MANOVA			10.04*			22.78*
	Language	1.8	2.09	27.68*	1.89	2.31	73.24*
	Math	1.82	2.14	23.29*	1.87	2.3	58.80*
	Social	2.34	2.71	36.77*	2.47	2.91	79.08*
	Movement	2.49	2.76	17.89*	2.62	2.98	46.97*
Spring Time 2	MANOVA			18.69*			26.34*
	Language	2.7	3.2	43.95*	2.87	3.52	87.39*
	Math	2.84	3.39	44.94*	3.03	3.72	87.04*
	Social	3.28	3.83	70.53*	3.48	4.01	82.53*
	Movement	3.51	3.89	30.70*	3.73	4.15	46.47*
Growth Rate (Time 2 – Time 1)	MANOVA			5.81*			5.34*
	Language	0.89	1.13	18.07*	1.03	1.21	9.31*
	Math	.997	1.28	17.02*	1.2	1.41	9.06*
	Social	.95	1.15	12.38*	1.01	1.06	0.91 ns
	Movement	1.02	1.16	5.27*	1.16	1.18	0.60 ns

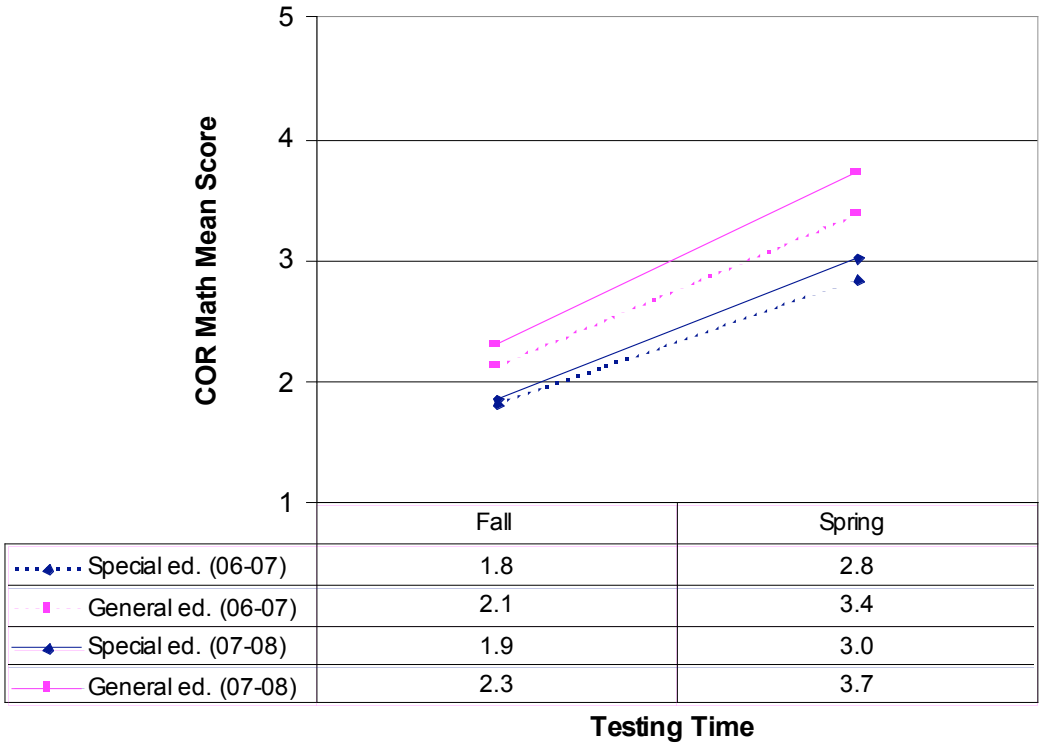
Data provided by the RCSD Office of Accountability
Asterisk (*) indicates a statistically-significant finding at <.01

Figure 18 COR Language Comparison: General and Special Education Students 2006-2007 and 2007-2008



	Fall	Spring
Special ed. (06-07)	1.8	2.7
General ed. (06-07)	2.1	3.2
Special ed. (07-08)	1.9	2.9
General ed. (07-08)	2.3	3.5

Figure 19 COR Math Comparison: General and Special Education Students in 2006-07 and 2007-08



Recommendation

- Track the kindergarten performance on the COR for general education students and for special education students.

PARENT PERSPECTIVES

Family Involvement Questionnaire

The 2007-2008 school year marks the second year in which the Family Involvement Questionnaire was distributed to RECAP families; it was completed by 739 families in March 2008. The 42-item questionnaire was designed to measure parents' support and involvement in their children's education and is psychometrically sound.[6] The Tenth annual RECAP report presented the factor analyses findings that confirmed the original authors' scales; three factors emerged: school involvement, home involvement, and parent-teacher communication. The results from last year and from this year were found to have very similar levels of parent involvement. Parents reported greatest involvement in the home environment, the least involvement in the classroom and moderate involvement with parent-teacher communications. The two bar graphs that follow show the 2006-2007 RECAP and 2007-2008 RECAP parental involvement levels.

The FIQ has three main areas that assess parent involvement in their child's education:

Parent involvement in the school: This looks at activities and behaviors that parents engage in at schools/centers with their children. Two item examples are: "I go on class trips with my child." and "I talk with other parents about school meetings and events."

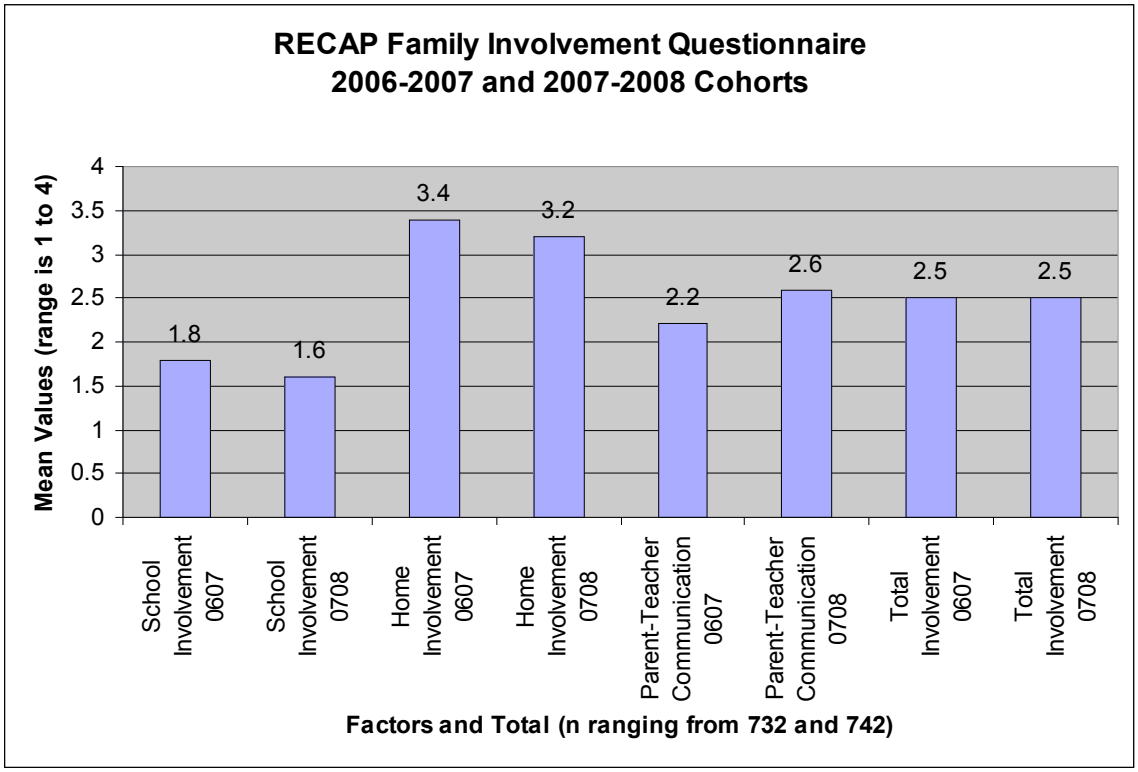
Parent involvement at home: This examines behaviors found in the home that are promoting a learning environment for children, such as providing a place in the home for learning materials and creating learning experiences in the community. Two items from this grouping are: "I spend time with my child working or reading/writing skills" and "I take my child places in the community to learn special things (e.g. zoo, museum, etc.).

Parent-teacher communication: These describe communication between parents and the school's personnel about the child's educational experience and progress, including talking with the teacher about multiple facets of the child's classroom experience. Some of those questions are: "I talk to my child's teacher about his/her difficulties at school" and "I talk to my child's teacher about my child's accomplishments."

The Technical Summary contains the full questionnaire and the associated frequencies.

[6] Fantuzzo, J., McWayne, C., Perry, M.A., Childs, S. (2004). Multiple Dimensions of Family Involvement and Their Relations to Behavioral and Learning Competencies for Urban, Low-Income Children. School Psychology Review, 33, 467-480.

Figure 20 RECAP Family Involvement Questionnaire, 2006-2007 and 2007-2008 Cohorts



Recommendation

To measure change in parent involvement during a RECAP school year, we recommend that the Family Involvement Questionnaire be administered once in the fall, and again in the spring.

CONCLUSION AND FUTURE DIRECTIONS

Conclusion

This Eleventh Annual Report on the RECAP system finds that Rochester is witnessing a consistent nine-year trend where RECAP has augmented quality instruction and supported the infusion of high-quality standards in more than 100 classrooms annually, serving on average 2,700 students. To ensure continued quality, the RECAP system regularly assesses the changing needs of the classrooms, teachers and students it serves. Here is a summary of the major findings:

- Classroom quality has been integrated into the prekindergarten infrastructure and a vast majority of teachers continue to implement extremely good to excellent standards in their classrooms.

- Not surprisingly, in the RECAP 2007-2008 school year, the results on the Early Language and Literacy Classroom Observation (ELLCO) demonstrated an exemplary performance of the pilot teachers on all parts of the assessment: Literacy Environment Checklist, Classroom Observation, and Literacy Activities Rating Scale.

- Both of the individual child-assessment measures, the Child Observation Record and the Teacher-Child Rating Scale, demonstrated consistency across the multiple years and multiple domains of the RECAP system's implementation.

- The tracking of the three years of the RECAP cohorts (2004-2005, 2005-2006, 2006-2007) establishes that, on average, all prekindergarten students, regardless of their ethnicity or gender, experience growth in very similar, almost identical patterns. This even holds during the summer-months drop, where the students' growth patterns decline, regardless of ethnicity or gender.

- Prekindergarten students who receive special services are demonstrating a lower performance on all four of the COR competencies; furthermore, while they show academic growth, it is at a statistically significant slower rate than that of students who do not receive special services.

Recommendations

Throughout this Eleventh Annual Report, we have made recommendations for future study and analyses of the prekindergarten experience here in Rochester. They are repeated here:

- Track the kindergarten performance on the COR for special education students and for general education students. It appears those children who need and are receiving special services are not making commensurate progress, which suggests that additional or different services may be needed for these children to be as successful as others.

- To measure change in parent involvement during the RECAP school year, we recommend that the Family Involvement Questionnaire be administered once in the fall, and again in the spring. The FIQ has shown itself to be a psychometrically sound tool. Its use should be expanded to determine if prekindergarten programs are influencing parent involvement and if such changes are related to or predict children's performance.

- Determine the developmental-growth rate for an urban population of 4-year-old children who are not attending a formal prekindergarten program. By understanding better how these children perform, we will understand better what, if any, added value is provided by the prekindergarten experiences.

- Survey the parents/guardians of children who attended prekindergarten programs and of those who did not, to determine the level and extent of formal instructional programs in the children's lives. At present we only know if a prekindergarten child has attended a RECAP-affiliated program or not. We believe these children who do not attend a RECAP classroom come from a variety of other "programming options" and we need to learn more about those options, both strengths and weaknesses, so as to make better recommendations to parents and policy makers.

Future Directions

As the field of prekindergarten assessment and quality implementation grows, there is increased desire for assessment tools and measures to capture most effectively the learning processes and classroom environments that best support them. The RECAP assessment team is interested in learning more about the Classroom Assessment Scoring System (CLASS), with a view to piloting its use in RECAP. Generally, the ECERS-R focuses on environmental classroom qualities, such as access to materials and the teacher, while "The CLASS is designed to capture instruction and implementation of curriculum so that the quality metric is based on interactional aspects of the classroom rather than on physical attributes and furnishings."[7] The RECAP assessment team is attending CLASS training to assess this measure and to see how it might fit in the RECAP system.

Second, RECAP is exploring the use of COMET, a web-based decision support system. During fall 2008, RECAP teachers will have the option to complete assessment tools on-line and receive immediate "real-time" feedback regarding their students' performance. As COMET develops, we plan that the system will integrate information from multiple sources, recommend specific interventions and monitor their efficacy. The overarching goal of this effort is to help teachers work more effectively with their students and for students and families to realize their potential.

[7] LaParo, K. & Pianta, R.C., & Stuhlman, M. (2004). The Classroom Assessment Scoring System. *Elementary School Journal,* 104 (5), pp. 409-426.

PRESENTATIONS AND PUBLICATIONS

Rochester Early Childhood Assessment Partnership
2007-2008

Hightower, A.D. (October 2007). *RECAP – A community assessment system for informed decision making*. Presentation to Dr. William Cala, Interim Superintendent, Rochester City School District.

Hightower, A.D. (December 2007). *RECAP – Measures and Evaluation.* Presentation to the Council of Child Care Administrators, Rochester, NY.

Moller, A.C., Forbes-Jones, E., Hightower, A.D., Friedman, R. (2008). The developmental influence of sex composition in preschool classrooms: Boys fare worse in preschool classrooms with more boys. *Early Childhood Research Quarterly 23 409-418.*