ROCHESTER EARLY CHILDHOOD ASSESSMENT PARTNERSHIP
2005-06 NINTH ANNUAL REPORT

OCTOBER 2006

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TECHNICAL REPORT AND WORKS IN PROGRESS SERIES: NUMBER T06-003

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Executive Summary

Rochester Early Childhood Assessment Partnership
Annual Report 2005-06

1. Overview of RECAP Today

The Rochester Early Childhood Assessment Partnership (RECAP) was started in Rochester, New York in 1992, by local foundations, business leaders, public schools, higher education, local governments and others. RECAP's purpose has been to address the need for understanding and improving the effectiveness of early education and care programs. Today, with public and private support of early care and education providers, local government, foundations and schools, RECAP has become responsible for the assessment of approximately two-thirds of Rochester's 4-year-olds, including its New York State Universal Prekindergarten program, and about one-quarter of Rochester's 3-year-olds.

RECAP provides an integrated and systemic process for ensuring that early childhood providers, programs, and other stakeholders have the information they need for making informed decisions that improve practices and child outcomes. RECAP provides useful data analyses on the status of Rochester's early childhood programs including: 1) parent satisfaction and interest in child development, programs, agencies, and support services; 2) classroom quality via independent classroom observations of adult and child interactions and environment; and 3) child-specific outcomes in motor development, speech and language development, school ("academic") skills, and socio-emotional skills.

The following schools and agencies participated in RECAP in 2005-06:

- Action for a Better Community, Inc. Head Start
- Charles Settlement House
- Diocese of Rochester Catholic Schools in the City of Rochester
- Early Childhood Education Quality Council Centers
- Family Resource Centers of Crestwood Children's Centers
- Monroe Community College Childcare Center
- Rochester Childfirst Network Family Childcare Satellites of Greater Rochester
- Rochester City School District Florence S. Brown Preschool Program
- Rochester City School District Early Childhood and Elementary Schools
- Rochester City School District Rochester Preschool-Parent Program (RPPP)
- YMCA of Greater Rochester

Number of young children served by RECAP in 2005-06:
2,531 pre-k students and 156 classrooms participated this year, compared to 2,790 students and 168 classrooms last year. There were 595 three-year-olds this year, compared to 650 last year.

2. Measures

Quality of Classroom and Program Environment

Independent, well-trained observers rate the quality of classroom and program environment using the Early Childhood Environment Rating Scale-Revised (ECERS-R) and Family Day Care Rating Scale (FDCRS). Seven areas of classroom and program quality are measured. The item scale ranges from 1 to 7. A score of 1 is considered "inadequate;" a 5 is an accepted standard, considered a benchmark; 7 is the highest attainable score.

Student Performance

The Child Observation Record (COR), developed by High/Scope, assesses students 2.5 to 6.0 years of age. A child's acquisition of academic, social, and motor skills is measured on a five-point developmentally sequenced scale with each point representing a level of growth along a developmental continuum. Student performance is measured by the change of growth on the COR between the fall and the following spring. RECAP has developed local norms for both prekindergarten and kindergarten on large samples (>2000).

Socio-emotional adjustment

The Teacher-Child Rating Scale (T-CRS) is a reliable, predictive, nationally-normed instrument that assesses children's socio-emotional adjustment in four areas: 1) Task Orientation, 2) Behavior Control, 3) Assertiveness, and 4) Peer Social Skills. Students who score below the 15^{th} percentile (approximately one standard deviation) on any T-CRS subscale are considered to be at risk in that particular area.

Reliability of the Measures

RECAP takes great care and devotes resources to ensure reliability in the measures we report annually. RECAP routinely publishes its reliability statistics. Moreover, the processes utilized by RECAP to ensure high reliability are rigorous.

The primary measures of the evaluation (ECERS-R, FDCRS, T-CRS, and COR) have alpha-reliabilities ranging from 0.86 to 0.94. To ensure the inter-rater reliability of the ECERS-R observation, 21 classrooms (16% of all observations) were observed by two observers, so that the level of agreement between different observers could be calculated. The inter-rater reliability was r = 0.95 (n=21 dual observations). When using the formula (a/a+d; a=agreement and d=disagreement) the median inter-rater reliability was .88 for exact matches and .95 for differences of one point.

3. Results on Classroom Quality

Classrooms assessed by RECAP were of high to very high quality; the mean ECERS-R score for RECAP classrooms was 6.0 and the median score was 6.2. The average ECERS-R quality of classrooms across the United States is 4.3, so RECAP was about 1.7 standard deviations above the national average, or at the 96th percentile.

Of the 156 classrooms:

- Only 10% of the classrooms were rated below a 5.0.
- 56% (more than half) of the classrooms had scores of 6.0 or above.
- 90% of the classrooms had at least good quality (score of 5 or more).
- In other words, 90% – or 9 out of every 10 classrooms – are at or above accepted standards for high performing classrooms.

(Note: There were a total of 156 classrooms in RECAP this year. While we do assess every teacher's classroom in RECAP, we do not assess a teacher's classroom more than once. Because 28 teachers had 2 classroom sessions, a total of 128 classroom sessions were assessed this year.

Teaching experience: Just as we did last year, we conducted an analysis this year to determine the relationship between ECERS-R scores and years of teacher experience in RECAP. We found that teachers with 6 or more years of experience have higher total ECERS-R scores by 0.5 compared to the teachers who were relatively new to RECAP, with either zero or one year of RECAP experience. Last year the difference between these groups was 0.7. This year, there were 48 relatively new RECAP teachers out of a possible 128. Based on previous work, it will likely take several years to raise the ECERS-R scores for these new teachers/classrooms.

4. Results on Student Performance in Academic, Social and Motor Skills

More than 80% of the students had COR change scores above developmental expectations. Only a small percentage (about 5%) of students show "negative growth." Additionally, those with negative growth in motor skills were considerably less than in the previous 2 years.

Based on the COR scores, there were some small detectable differences in growth and performance among Black, Hispanic or White pupils in Rochester. This finding, however, has not always been consistent in previous years. Last year there were no academic, motor, or social differences in growth or performance among these three main racial/ethnic groups.

There was also a detectable difference in growth among boys and girls this year. Girls were found to have had more growth than boys in the academics skills only. Just as for race/ethnicity, this finding has not always been consistent in previous years. Last year we did not see any differences in COR growth by gender.

This year, no significant correlation was found between ECERS-R scores and child growth in COR scores. Also, there were no significant relationships between high and very high quality classroom environments and student performance as measured by the average growth in the COR. This may be the result of so many classrooms at very high levels of performance.

In 2003, the authors of COR introduced a new 32-item version of the COR (COR32). We have been collecting COR32 data for the past 2 years. An additional RECAP highlight for 2005-06 was that data analyses were completed on this COR32 data and reported on in June 2006. As a result of this work, beginning in the fall of 2006-07, RECAP will be distributing and using a new version of the COR measure; a reduced set of the 23 items from the COR32 version.

Additionally, the results from testing this new COR32 yielded the following four-dimensional construct structure for the COR32 for 4-year-olds:

- Initiative & Social Skills
- Movement & Music
- Math & Science
- Language & Literacy

For RECAP, beginning in 2006-07, the previous single "Academic" COR subscale will be broken out into discrete domains for "Math & Science" and "Language & Literacy."

5. <u>Results in Socio-Emotional Risk Factors</u>

Fewer children this year – 10% of the students – presented multiple socio-emotional risk factors at entrance into preschool in the fall of 2005 (e.g., students below the 15th percentile on the T-CRS), compared with 13% last year. This percentage has been as high as 16% in some years.

Students who entered preschool with multiple socio-emotional risk factors were rated by their pre-k teachers as lower in academic, motor and social skills than their peers who were not at risk. This finding is consistent with previous years.

Of the students who initially presented no socio-emotional risk factors, 6% presented one and 2% showed multiple risk factors at the end of the academic year.

This year, there were gender differences found in the number of socio-emotional risk factors by risk factor type at entrance into prekindergarten. For example, 4.4% of boys had a

behavior control risk factor compared to only 1% of the girls. For the fourth year in a row there were no race/ethnicity differences seen in the number of socio-emotional risk factors.

The initial classification of students with a single risk factor changed. By the end of the academic year, 58% of the students classified with a single risk factor improved and had no detectable socio-emotional risk factors; 26% remained the same; and 16% presented multiple socio-emotional risk factors.

As in previous years, roughly half of the students who started initially with multiple risk factors improved and did not have multiple risk factors at the end of the year. More specifically, 52% of students with multiple socio-emotional risk factors remained in that category at the end of the academic year. But, conversely, 48% did move out of this category, with 18% improving to one risk by spring, and 30% improving dramatically to no risks by the spring.

This year, for the second consecutive year, we found that there was no correlation between the ECERS-R score and the percentage of students with socio-emotional risk factors who improved.

6. Results in Parental Perspectives

Parent Satisfaction Survey – Overall, parents remain very satisfied with their children's prekindergarten programs. 93% rated the programs above a "B" (good), and 62% of parents rated their child's program with an "A" grade. Over the last 5 years, parent's ratings with B+ or higher has consistently been between 93% and 95%.

There were no real major differences between last year and this year in rates of overall parental satisfaction with their program. The percentage of ratings that were an "A" grade did decrease to 62% from 67% last year. Two years ago, this "Excellent-A" percentage was 64%.

Preschool Parent Support Questionnaire (PPSQ) – The PPSQ is used to survey parents in the fall and spring of the school year. The questionnaire asks the parent how strong their social support is from each of four support domains: family members, friends/neighbors, preschool staff, and others (church, work, etc.). For each of 5 parenting issues, the respondent is asked to rank the level of support that they receive from each domain, on a range from 1 (never) to 10 (always). A new analysis was completed this year on recent PPSQ results. We found that while family members continue to be the greatest means of support for parents, significantly large fall to spring increases were seen in the parent's reliance on the child's pre-k program staff.

7. Training and Consultation Summary

- 10 program staff members participated in orientation activities.
- 54 prekindergarten teachers were trained in the COR.

- 14 program staff members were trained in the ECERS-R.
- 10 new ECERS-R master observers were trained.
- 25 ECERS-R master observers participated in refresher training.
- 49 program staff members attended reports interpretation workshops or individual sessions.
- 34 program staff members and partners attended 2004-05 Annual Report Findings presentations.
- 5 new FDCRS master observers were trained this year.

8. Parent Involvement and Child Outcomes

For the past several years, in addition to student classroom attendance, parent attendance in a variety of program activities was collected for RECAP programs. This year, for the third consecutive year, analyses were performed to determine patterns in parent involvement, and if relationships exist between different types of parent involvement and the performance of the children.

By performing a cluster analysis on the parent attendance data, three distinct categories of parent involvement were detected again. These groupings for parents included "Group Involvement," "Overall Involvement," and "Low Involvement." For all RECAP programs combined, 55% of the parents were categorized as the "Low Involvement," 27% were "Group Involved" and 18% were "Classroom Involved." This finding was consistent with results from the previous two completed RECAP studies.

One finding this year was that the initial COR and T-CRS skills were significantly related to the parenting involvement type; parents with individual involvement had children with higher academic skills. The "Individual Involvement" type of parents had children who scored 0.4 higher on the initial academic COR subscale compared with the children of "Low Involvement" parents. However, pre to post changes in these measures were not significantly related to parent involvement types.

9. Family Childcare

RECAP included family childcare providers for a second year in 2005-06. Assessment of family childcare is a key outcome for RECAP motivated by community investment and interests. Currently, 22 family childcare providers are participating in RECAP. The mean FDCRS score this year was 5.4 which can be categorized as "Good" quality.

10. Pre-k Children with Disabilities

An analysis on pre-k students with disabilities was again completed in partnership with the Rochester City School District's (RCSD) Department of Research, Evaluation and Testing, the Department of Early Childhood Education. The findings include: about two-thirds of pre-

k students with disabilities are boys. Pre-k students classified with a disability perform consistently at lower levels, as measured by the COR and T-CRS, than the general education population. However, they make gains commensurate with those of the general education students.

11. Formal RECAP Incorporation of the Children's Health Information (CHI)

The parent-completed questionnaire, CHI, was developed and first implemented in 1999 by Children's Institute. It was designed to provide preschool personnel with a conduit for obtaining systematic information from parents regarding their prekindergarten children, particularly in areas of overall health. The CHI serves as the pre-k equivalent to the more comprehensive Parent Appraisal of Children's Experiences (PACE), conducted at K-2 since 1998. The CHI covers three main areas: demographics, general health information, and overall performance. CHI questionnaires were completed for 1,039 children in 2005-06 (41% of all RECAP students). The CHI was most often completed by the child's mother (88%).

The following are highlights: 22% of entering pre-k pupils have never visited a dentist (31% last year and 38% two years ago); asthma rates are very high, with 18% of the pupils' physician reporting asthma; 10% of entering pre-k pupils having been hospitalized for asthma in the past year; and approximately 27% of the parents are concerned enough about other developmental issues to suggest that their children are in need of additional services.

12. Follow-up Study

Follow-up of RECAP students – Again this year, RECAP compared the 2005-06 kindergarten performance of students who participated in RECAP 2004-05 pre-k programs with students who did not attend RECAP programs. The RCSD 2005-06 kindergarten COR scores were used. Once again we found that the 2004-05 RECAP students had significantly higher 2005-06 fall and spring kindergarten COR scores than non-RECAP students. The actual effect size was small, but significant. This finding has now repeated for the three consecutive years that these analyses have been performed. Of special note this year, involvement in RECAP pre-k programs still appears to work equally well for all students. Although we continue to carefully examine differences and trends, it appears that gender and race/ethnicity do not have a significant impact, when tested in combination with the RECAP effect.

13. Gender Gap Data Analysis

It has been very noticeable in recent years that boys have generally not been performing as well as girls in pre-k classrooms. The purpose of this new data analysis was to identify and document more precisely in which RECAP measures this phenomenon is occurring. Among the findings, which were replicated over 2 years: girls had higher scores from teachers in T-CRS task orientation and behavior control; girls were assessed higher by teachers in COR

motor skills especially “drawing & painting” and “moving with objects;” and girls had higher scores as assessed by parents in P-CRS task orientation skills.

Acknowledgements

This report would not be possible without the important contributions of the many partners. Such partners include programs, foundations, and other agencies, each consisting of many individuals who, year after year, give their time, hard work, ideas, and support to the Rochester Early Childhood Assessment Partnership (RECAP).

Financial support was provided by Rochester Area 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, and United Way of Greater Rochester.

Other contributing partners include Action for a Better Community Head Start, Inc., Catholic Diocese of Rochester, Charles Settlement House, Children's Institute, Early Childhood Education Quality Council Centers, Family Resource Centers of Crestwood Children's Center, Florence S. Brown Pre-k Center, Monroe Community College Childcare Center, Rochester Childfirst Network Family Childcare Satellites of Greater Rochester, Rochester Preschool-Parent Program, Rochester City School District programs and Department of Research, Evaluation, and Testing, and 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 team. This is of great value in our ongoing process of system revision and improvement.

We especially wish to thank the thousands of parents who gave time from their busy schedules to share their thoughts and perceptions on a variety of topics and to complete important "paperwork."

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

We thank the entire RECAP team, particularly Julia Guttman, Lori VanAuken, Marcia Winter, plus the creative staff of Children's Institute, for their contributions to RECAP and this report.

We are excited about the future of RECAP and its impact on young children's experiences. With a shared vision, we continue to promote informed decision making to enrich and improve early childhood programs and school performance.

I. Program Quality

ECERS-R – Quality of the Classroom Environment

Classroom quality is key to the provision of early education services. Independent, well-trained observers rated the quality of classroom environment using the Early Childhood Environment Rating Scale – Revised (ECERS-R). The ECERS-R was developed at the University of North Carolina in the 1970s, and revised in 1998 (Harms, Clifford & Cryer, 1998). It is the most widely used objective observational tool of early education classroom quality and environment. The ECERS-R measures seven areas of classroom quality:

- Space and Furnishings
- Personal Care Routines
- Language and Reasoning
- Activities
- Interaction
- Program Structure
- Parents and Staff.

Each area contains from 5 to 10 items that represent various elements of that area. The item scale ranges from 1 to 7. A score of 1 is considered "inadequate," a score of 3 as meeting "minimal" standards, a 5 is equivalent to meeting "good" quality standards, and a 7 indicates "excellent" quality. Classrooms meeting National Association for the Education of Young Children (NAEYC) standards often score near 5.

After an observer is trained and meets inter-rater reliability of .85 with a master trainer, he/she is assigned to four to six classrooms. During a typical observation, an observer spends 3 to 5 hours observing the classroom, focusing on 43 distinct items that make up the ECERS-R. After the classroom observation, the observer typically spends an additional 30 to 60 minutes interviewing the teacher to answer any questions about classroom activities or features that could not be discerned during the observation phase.

How are master observers trained?

In the first year of training, observers must participate in a fifteen-hour training program. In every subsequent year, an additional four to five hours of training are required. In-depth training for refinement of observation skills, inter-rater reliability, logistics of the observation process, observation guidelines and protocol are carefully reviewed with master observers every year.

Master Observers are trained to attain and maintain a minimum level of inter-rater reliability (a/a+d>.80). Master Observers are recruited from the Rochester area and selected on the basis of their years of experience in early childhood education (>10 years), skills in program observation, and their personal interest.

What is the reliability of the ECERS-R?

As part of an ongoing effort to maintain the reliability of the ECERS-R, 21 classrooms were observed by two observers so that the level of agreement between different observers could be assessed.

The internal reliability (alpha) of the ECERS-R was 0.92. The inter-rater reliability was r = 0.95 (n=21 dual observations). Using (a/a+d; a=agreement and d=disagreement) the median inter-rater reliability was 0.88 for exact matches and 0.95 for differences of one point. These findings show that the administration of the ECERS-R by RECAP conforms to high standards because the developers of the ECERS-R reported similar internal consistency (0.92) and inter-rater reliability (0.92). Table I-1 below shows the inter-rater reliability of ECERS-R total score and subscales.

Table I-1

2005-06 Inter-Rater Reliability (r) of ECERS-R in RECAP

Scale	**Inter-Rater Reliability (r)***
Space	0.88
Routines	0.96
Language	0.89
Activities	0.96
Interaction	0.91
Program Structure	0.96
Parent and Staff Development	0.66
Total ECERS-R Score	0.95
Sample N	21
Note: * Signifies that all r values shown were Significant at p<.001.	

A complete 5 year history of reliability statistics for RECAP measures plus a 5 year history of ECERS-R inter-rater reliability can be found in Appendix XI of the **RECAP 2005-06 Annual Report Statistical Supplement**. The technical report ID is T06-004 and can be downloaded from the Children's Institute web site (www.childrensinstitute.net).

Where is the ECERS-R being used?

The ECERS-R is used in many studies investigating the quality and outcomes of prekindergarten education, both in the United States and internationally. The ECERS-R was adopted to measure the quality of prekindergarten classrooms funded by universal prekindergarten in the State of Georgia. It was also used in the cost, quality, and outcome studies that assessed quality in 120 classrooms in 3 states, in a study involving 150 classrooms in Florida, and in a study that evaluated the quality of 32 Head Start classrooms. Studies in Germany, France, Portugal, and Sweden have used the ECERS-R. In short, the ECERS-R is one of the premiere measures used to evaluate quality of prekindergarten environments both in the U.S. and around the world.

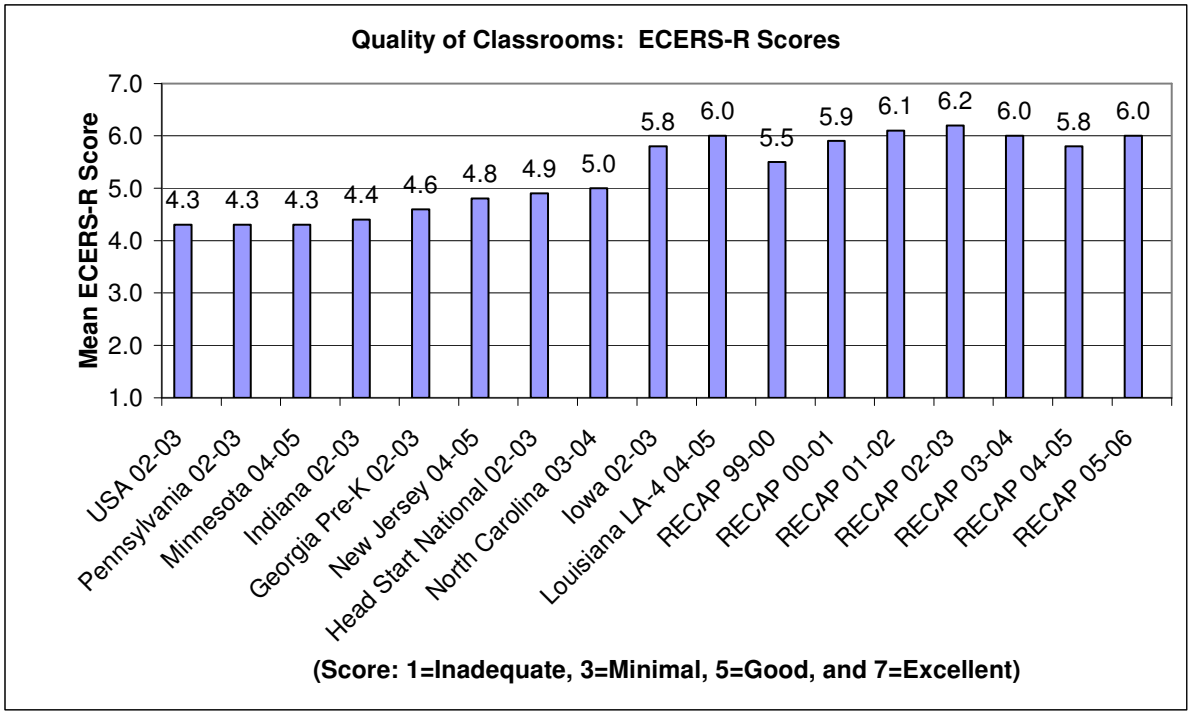
How does Rochester's formal Early Childhood Education (ECE) compare with ECE systems across the US?

Using the ECERS-R allows comparison of the quality of the prekindergarten programs in Rochester with pre-k programs in other states and nations. Before any comparison is made, however, it is important to be certain that classrooms and student populations are similar.

In most of the studies using the ECERS-R, a sample was taken that included urban, suburban, and rural prekindergarten and childcare centers. In these studies, there was no attempt to select only programs or centers serving a high need or low-income population. RECAP differs in that we measure the quality of centers and schools serving an urban population in a city recognized for its high level of per capita child poverty – currently eleventh in the U.S. in per capita child poverty for urban areas (Children's Defense Fund, June 2002).

Figure I-1 below shows the recent mean ECERS-R scores for RECAP and other studies.

Figure I-1 Quality of Rochester formal ECE system.

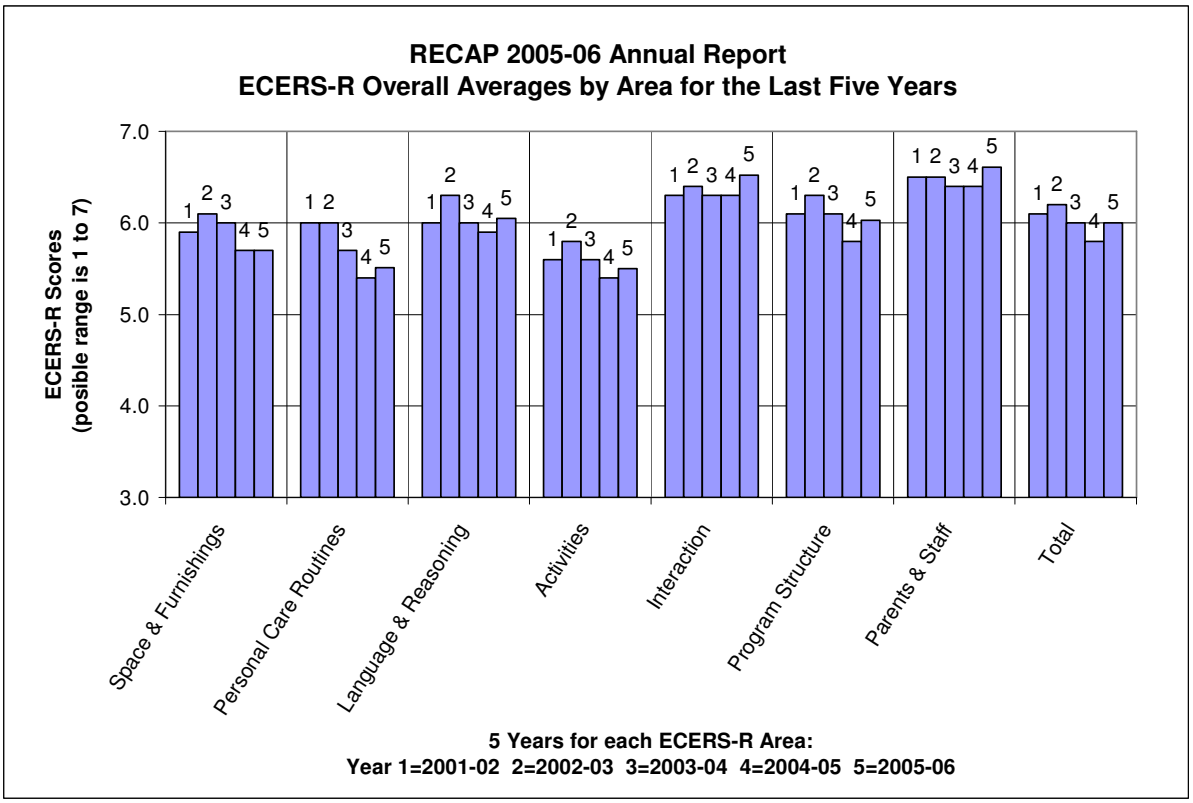


As in past years, RECAP programs have maintained a high quality level. The reported standard deviation for the United States sample was 1.0, which would place RECAP classrooms 1.7 standard deviations above the national average. Rochester is fortunate to have an exceptionally high quality early childhood system for four-year-olds. Policymakers and others interested in the overall welfare of the City of Rochester should regard Rochester's early childhood programs as a key community asset in an otherwise highly impoverished city. Parents also should be informed that Rochester possesses an extraordinarily high quality formal prekindergarten system so that they can make informed decisions.

Is the Quality Level of Rochester's Formal ECE Changing?

This year the mean ECERS-R score for RECAP classrooms was 6.0 and the median score was 6.2. As shown in Figure I-1 above, over the past 7 years, classroom quality level has been maintained at a high level. Please note that because seven is the maximum score in the ECERS-R, representing the perfect score in forty-three different items; the range of 5.8 to 6.2 scores over the last 6 years is approaching the maximum possible score of the scale, somewhat limiting our ability to measure improvement.

Figure I-2 ECERS-R Overall averages by area and by year.



RECAP 2005-06 Annual Report									
ECERS-R Overall Averages 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
2001-02 (n-=118)	1	5.9	6.0	6.0	5.6	6.3	6.1	6.5	6.1
2002-03 (n=128)	2	6.1	6.0	6.3	5.8	6.4	6.3	6.5	6.2
2003-04 (n=137)	3	6.0	5.7	6.0	5.6	6.3	6.1	6.4	6.0
2004-05 (n=129)	4	5.7	5.4	5.9	5.4	6.3	5.8	6.4	5.8
2005-06 (n=128)	5	5.7	5.5	6.1	5.5	6.5	6.0	6.6	6.0

It can be seen in Figure I-2 above that ECERS-R scores for 4 areas have been fairly stable over a five year period. However, Space & Furnishings, Personal Care Routines and Activities areas have decreased from 3 years ago. These decreases will be addressed later in this section.

Figure I-2 shows the mean ECERS-R scores based on a sample of 128 observations in 2005-06. There were a total of 156 classrooms in RECAP this year. While we do assess every teacher's classroom in RECAP, we do not assess a teacher's classroom more than once.

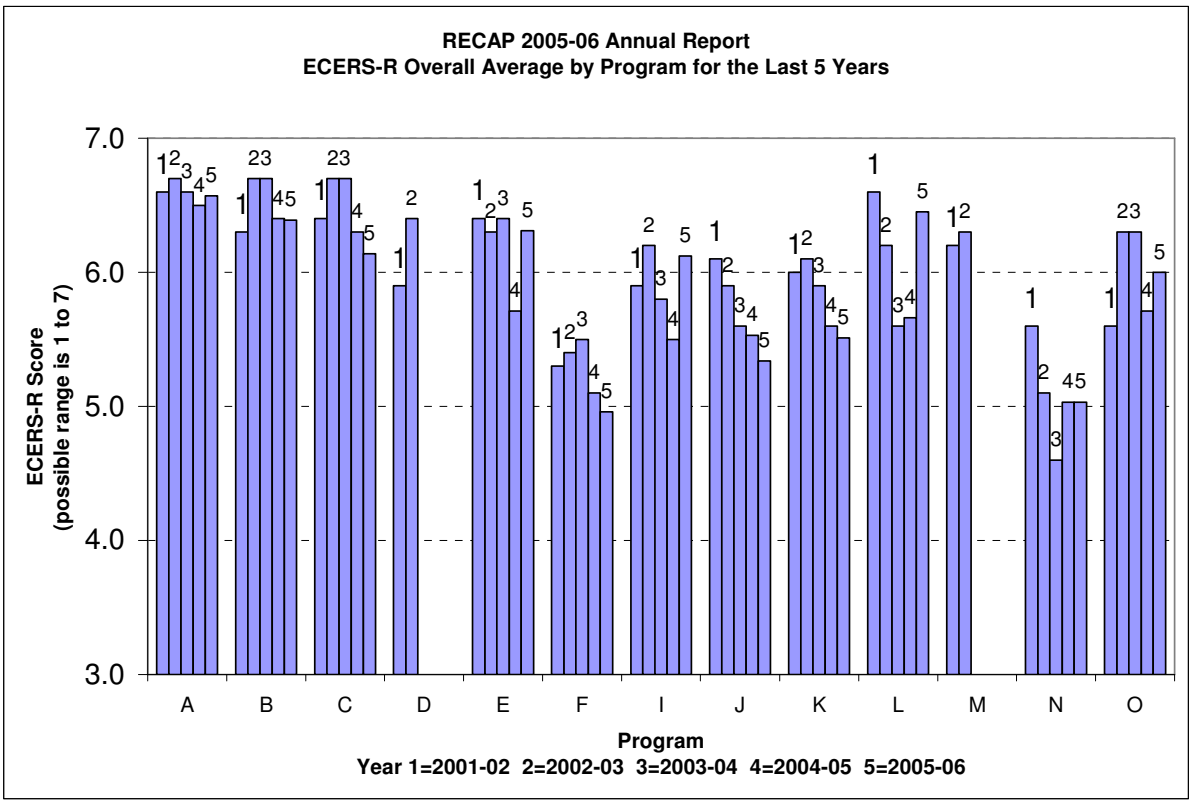
Because 28 teachers had 2 classroom sessions, a total of 128 classroom sessions were assessed this year.

Are individual programs maintaining high quality?

Figure I-3 below shows that programs are generally maintaining a very high level of quality. All 3 programs that had a mean score of more than 6.0 last year continued to show that same quality this year. Four programs which had a mean score of below 6.0 last year scored markedly higher this year and are now above 6.0 (E, I, L, and O).

Please note that programs letter D and M in Figure I-3 are no longer independent programs. The classrooms for these programs were assimilated into other existing programs 2 years ago.

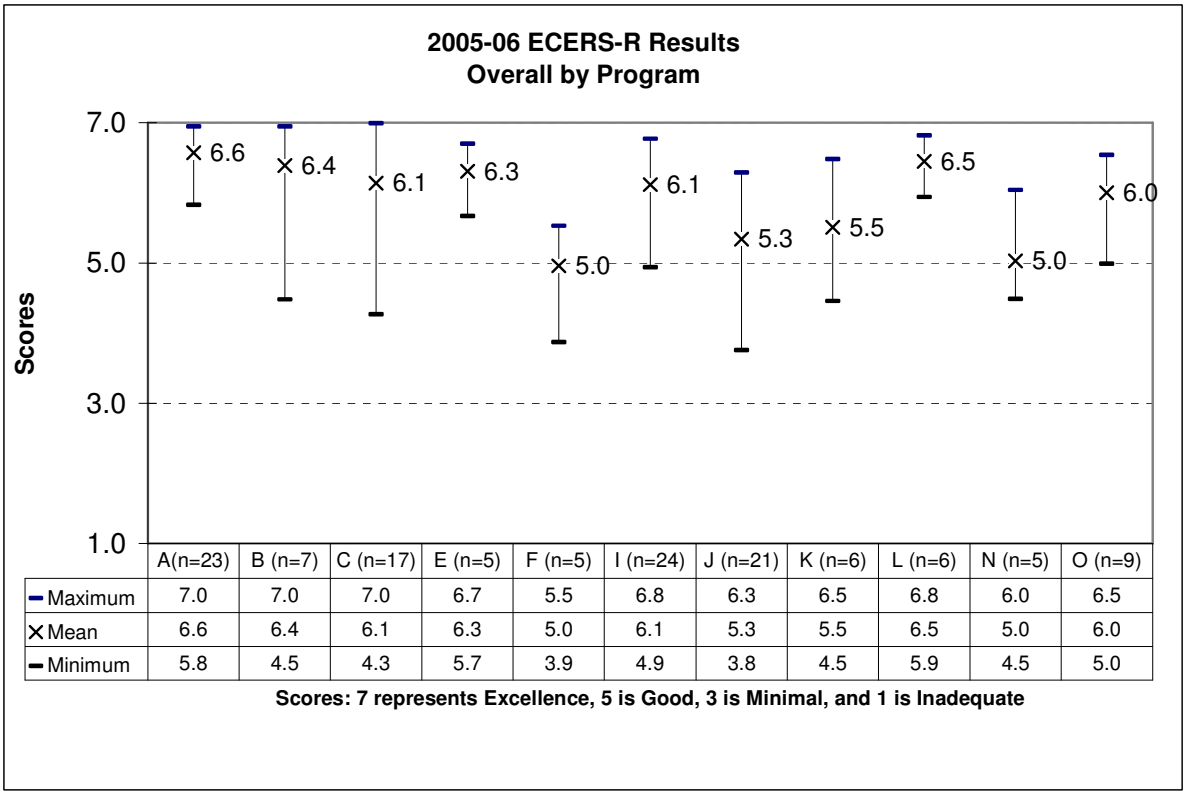
Figure I-3 ECERS-R overall averages by program and by year.



ECERS-R Overall Average by Program for the Last 5 Years																
				Program												
School Year	Mean Total	n	Year	A	B	C	D	E	F	I	J	K	L	M	N	O
2001-02	6.1	118	1	6.6	6.3	6.4	5.9	6.4	5.3	5.9	6.1	6.0	6.6	6.2	5.6	5.6
2002-03	6.2	128	2	6.7	6.7	6.7	6.4	6.3	5.4	6.2	5.9	6.1	6.2	6.3	5.1	6.3
2003-04	6.0	135	3	6.6	6.7	6.7		6.4	5.5	5.8	5.6	5.9	5.6		4.6	6.3
2004-05	5.8	129	4	6.5	6.4	6.3		5.7	5.1	5.5	5.5	5.6	5.7		5.0	5.7
2005-06	6.0	128	5	6.6	6.4	6.1		6.3	5.0	6.1	5.3	5.5	6.5		5.0	6.0

What is the Quality of Individual Classrooms this Year?

Figure I-4 the 2005-06 quality of individual classrooms.



	A(n=23)	B (n=7)	C (n=17)	E (n=5)	F (n=5)	I (n=24)	J (n=21)	K (n=6)	L (n=6)	N (n=5)	O (n=9)
Maximum	7.0	7.0	7.0	6.7	5.5	6.8	6.3	6.5	6.8	6.0	6.5
Mean	6.6	6.4	6.1	6.3	5.0	6.1	5.3	5.5	6.5	5.0	6.0
Minimum	5.8	4.5	4.3	5.7	3.9	4.9	3.8	4.5	5.9	4.5	5.0

Scores: 7 represents Excellence, 5 is Good, 3 is Minimal, and 1 is Inadequate

Number of Classrooms Within Score Range by Program													
Score Range	**A**	**B**	**C**	**E**	**F**	**I**	**J**	**K**	**L**	**N**	**O**	**Total**	**Percent**
1-1.9	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	1	0	1	0	0	0	0	2	1.6%
4-4.9	0	1	1	0	1	1	3	1	0	3	0	11	8.6%
5-5.9	2	0	5	1	3	8	15	4	1	1	3	43	33.6%
6-6.9	20	5	9	4	0	15	2	1	5	1	6	68	53.1%
7.0	1	1	2	0	0	0	0	0	0	0	0	4	3.1%
Total	23	7	17	5	5	24	21	6	6	5	9	128	100.0%

Figure I-4 above shows the quality of each classroom in RECAP by program. There are a number of facts worthy of note:

1) No classroom scored lower than minimum standards (a score below 3).
2) 10% of the classrooms scored between minimum standards and good quality (score of 5).
3) 90% of the classrooms had at least good quality (score of 5 and above).
4) 56% of the classrooms had quality at or above a score of 6.

5) Most programs have very few classrooms (10%) below a 5.

6) Programs A, C, and I have a high, homogenous quality level although they have a relatively large number of classrooms (n=23, n=17, and n=24 respectively).

7) The overwhelming majority of students attending classrooms assessed within RECAP were in "good" to "excellent" quality classroom environments.

Combining the information in Figures I-3 and I-4 above we can conclude:

1) Some programs have had a large number of classrooms and excellent quality for years. In particular, program A has 23 classrooms and has an impressive mean ECERS-R of 6.6 with a high level of uniform quality. More importantly, that average uniform level of quality has been maintained for five years. Therefore, it is possible to have a large program serving urban preschool children with consistent high quality.

2) Smaller programs, such as program B, also have maintained high quality classrooms for the last 5 years.

Over the years RECAP evaluations have repeatedly demonstrated that "One size does not fit all." Different programs work for different children and families in different ways. There remains one high standard, but the various and diverse RECAP-affiliated programs and schools are required to fit the needs of Rochester's diverse families. The results presented in these pages again confirm this basic conclusion.

That we observe both large and small programs providing consistently high quality demonstrates that we can enjoy one size not fitting all, and not at the expense of quality.

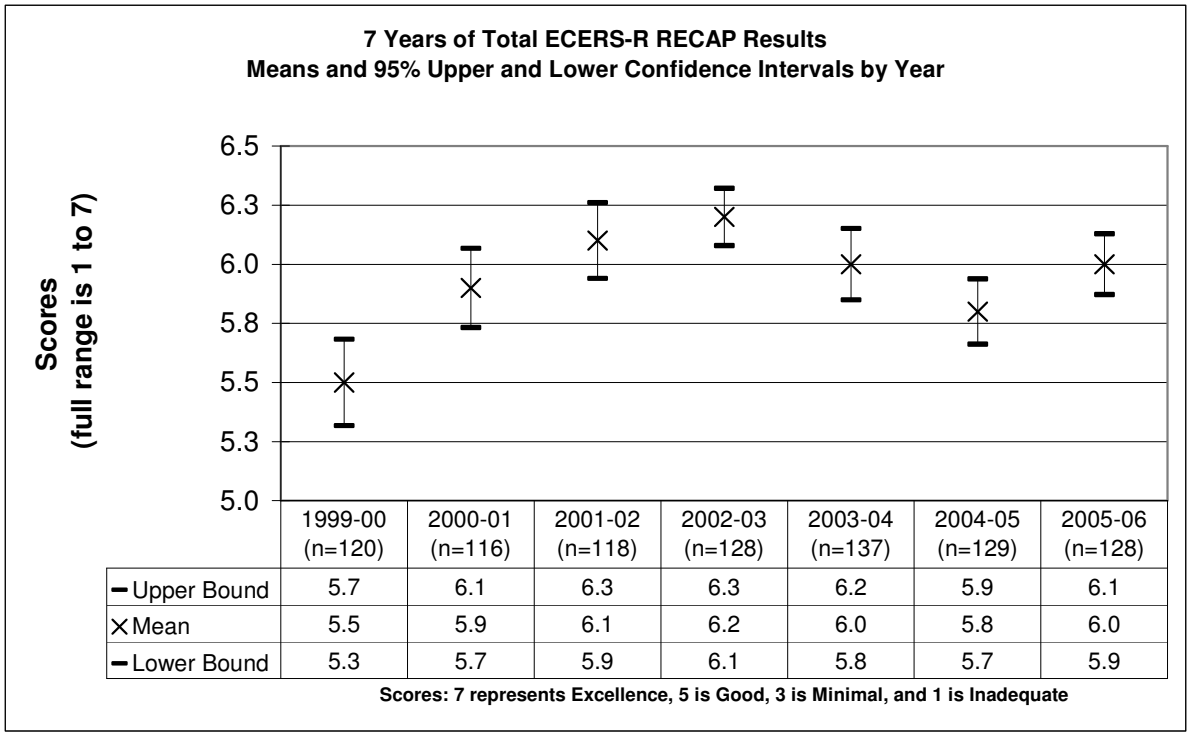
Appendix A in the **RECAP 2005-06 Annual Report Statistical Supplement** shows the distribution of ECERS-R scores by program for each of the areas of the ECERS-R. The interested reader is referred to this supplement.

Do we see any trends in ECERS-R scores? (New Analysis)

The following ECERS-R analysis has been added this year for the purpose of examining possible trends or potential problem areas in our ECERS-R classroom quality processes.

Although programs have maintained a very high level of quality, there have been fluctuations in recent years. Figure I-5 below is a new chart added to our report this year to help better understand year to year variation in ECERS-R scores. It shows mean RECAP ECERS-R scores and 95% confidence bands around each mean for the last 7 years. Figure I-5 shows that from 1999-00 through 2002-03, there were 3 straight years of increases in ECERS-R total scores. After that initial period, we saw the scores go down for 2 years, followed by an increase this year.

Figure I-5 ECERS-R means and 95% confidence intervals.



	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)
Upper Bound	5.7	6.1	6.3	6.3	6.2	5.9	6.1
Mean	5.5	5.9	6.1	6.2	6.0	5.8	6.0
Lower Bound	5.3	5.7	5.9	6.1	5.8	5.7	5.9

Figure I-5 displays our history of ECERS-R scores similar to a "statistical process control chart" which is often used for monitoring quality in other high-precision processes such as in business and manufacturing industries. This chart shows the mean, upper, and lower 95% confidence bounds for each year of RECAP ECERS-R scores. The upper and lower bounds are computed as: +/- 1.96*s/(square-root of n), where s and n is the standard deviation and sample size, respectively, of the ECERS-R scores in each year. Looking at Figure I-5 above again, we can see that from the 2004-05 perspective, and considering the "normal variation" in ECERS-R scores each year (variation between upper and lower bounds), there certainly appeared to be a downward trend in ECERS-R scores. Table I-2 below shows the actual means and standard deviations of RECAP ECERS-R scores for the last 7 years.

Table I-2

2005-06 RECAP Annual Report

Seven Years of RECAP Mean Total ECERS-R Scores

				Mean and 95% Confidence Bands		
	RECAP Year	**Number Observations (n)**	**Standard Deviation (s)**	**Lower Bound**	**Mean**	**Lower Bound**
1	1999-00	120	1.0	5.3	5.5	5.7
2	2000-01	116	0.9	5.7	5.9	6.1
3	2001-02	118	0.9	5.9	6.1	6.3
4	2002-03	128	0.7	6.1	6.2	6.3
5	2003-04	137	0.9	5.8	6.0	6.2
6	2004-05	129	0.8	5.7	5.8	5.9
7	2005-06	128	0.7	5.9	6.0	6.1

The following is meant to be an empirical or non-subjective analysis of a recent trend seen in the mean ECERS-R scores of RECAP classrooms.

Figure I-6 below shows the same results as in Figure I-5 but treats the 6 years of ECERS-R scores (6 years prior to 2005-06) as a time series. Taking a purely objective approach, Figure I-6 shows the best fitting function or curve through the data, for the years 1999-00 through 2004-05. Taking the perspective of 2004-05, and if ECERS-R scores were truly following this curve seen in Figure I-6, and nothing occurred in 2004-05 to correct the downward direction, an ECERS-R score of 5.3 would have been the projection for 2005-06. The "intervention" identified in Figure I-6 in 2004-05 is not really meant to point to any one person or event, but is understood to be a general phenomenon where many programs, directors, and teachers began to see and correct this downward trend.

Figure I-6 the "Best Fit" polynomial for first 6 years RECAP ECERS-R scores and a projection for the 7th year.

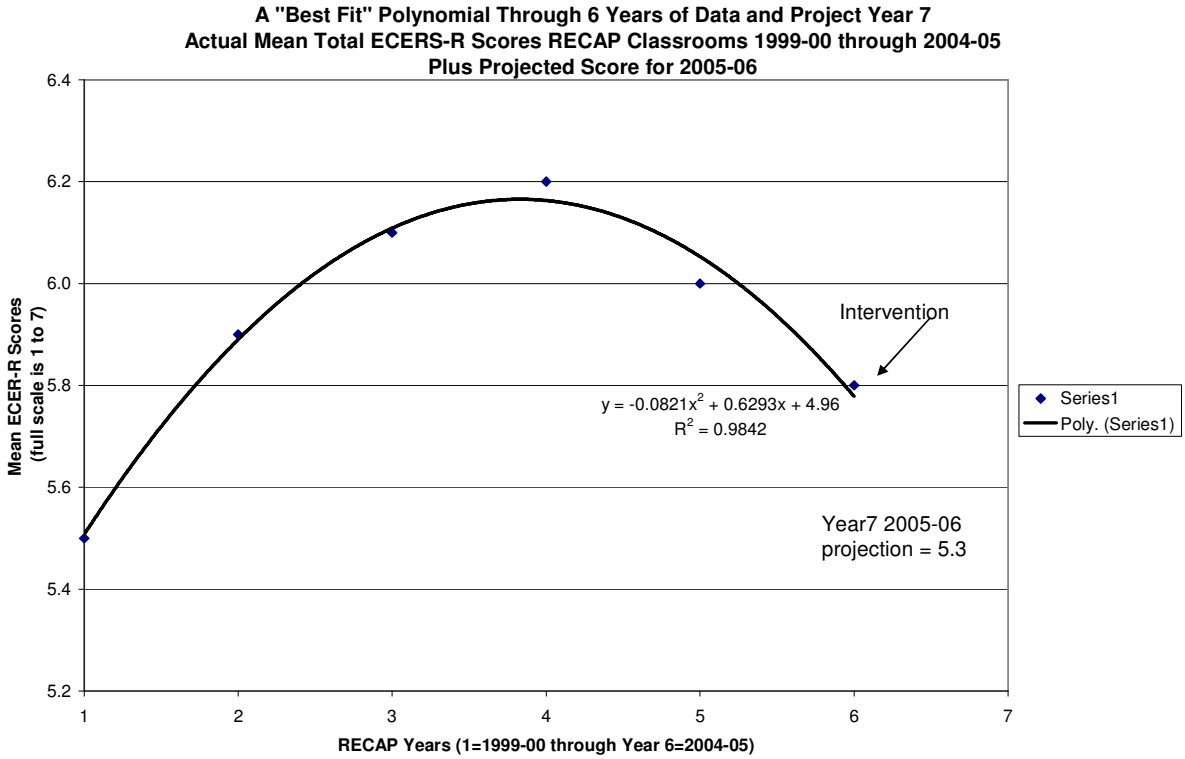
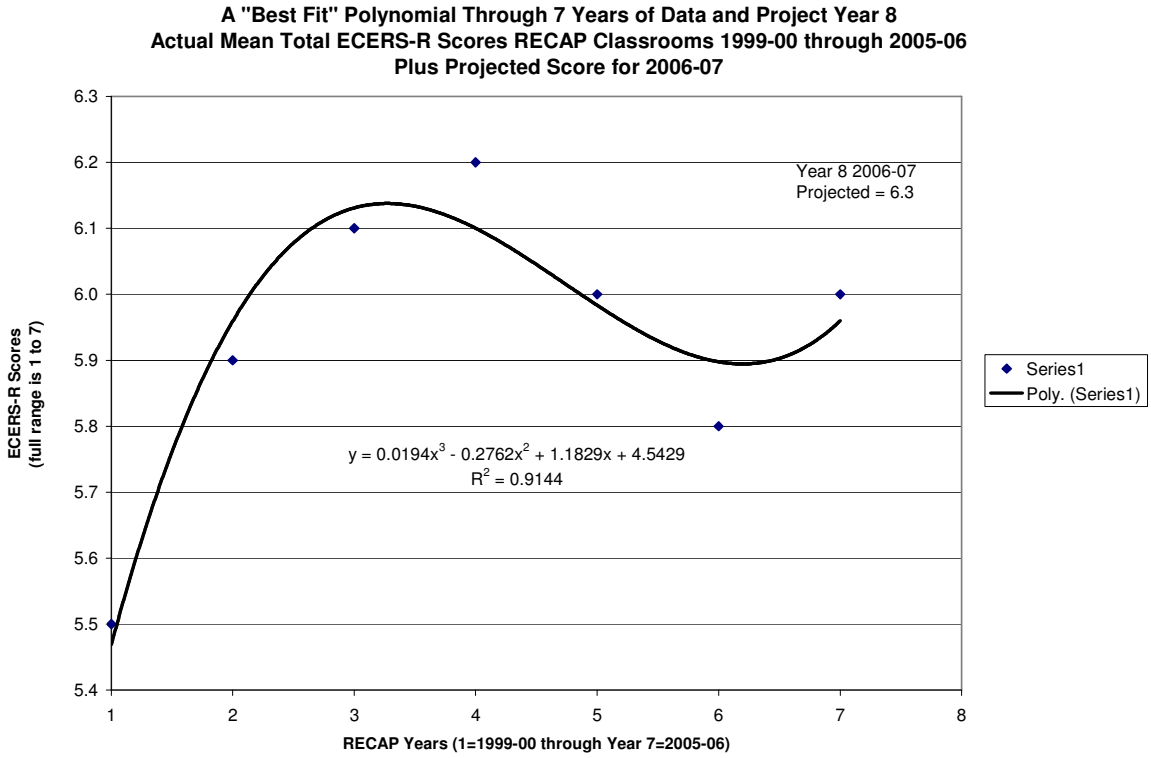


Table I-3 below shows the results of performing cure-fitting on both 6 and 7 years of data. The best fitting curve for 6 years of known data (1999-00 through 2004-05) was the equation with a quadratic term, with an r-squared value of 0.98. The best fitting curve for 7 years of known data (1999-00 through 2005-06) was the equation with a cubic term, with an R-squared value of 0.91. An R-squared value of 0.98 means that 98% of the variation in the ECERS-R scores is explained by this equation and is considered very accurate.

Table I-3					
2005-06 RECAP Annual Report					
ECERS-R Curve-Fitting Results with 6 and 7 Years of Known ECERS-R Scores					
Regression Coefficients	**#Years Known**	**R-Squared**	**Standardized B Coefficient**	**t-Value**	**Significance p value**
Equation with linear term only	6	0.17			
Year variable			0.41	0.9	.421
Constant			-	24.3	.000
Equation with quadratic term	6	0.98*			
Year variable			4.74	13.4	.001
Year variable ** 2.			-4.43	-12.5	.001
Constant			-	68.9	.000
Equation with linear term only	7	0.16			
Year variable			0.41	0.9	.368
Constant			-	29.7	.000
Equation with quadratic term	7	0.66	3.64	2.6	.059
Year variable			-3.31	-2.4	.076
Year variable ** 2.			-	20.4	.000
Constant					
Equation with cubic term	7	0.91**			
Year variable			11.17	4.3	.024
Year variable ** 2.			-21.34	-3.5	.038
Year variable ***3.			10.80	3.0	.057
Constant			-	16.5	.000
Notes: * Denotes that polynomial with a quadratic term is the best fit with 6 years of data. ** Denotes that polynomial with a cubic term is the best fit with 7 years of data.					

Figure I-7 below shows similar results as in Figure I-6 but treats the 7 years of known data (all years 1999-00 through 2005-06) as a time series. Figure I-7 shows the best curve fitting based on the time series 1999-00 through 2005-06.

Figure I-7 Cubic polynomial fit for 7 years of total ECERS-R scores.



It does look like we have "turned a corner" in Figure I-7, and once again, ECERS-R scores are headed upward. Even though the 6.0 mean ECERS-R score in 2005-06 seems to show that earlier downward trend has been corrected, we need another year of data to confirm that to be true. One year does not constitute a trend.

In Table I-4 below we can see comparisons between ECERS-R scores for 2005-06 and at our highest point to-date in 2002-03. In this table we can see that the three-year change from 2002-03 (highest ECERS-R scores) to 2005-06 is significant in 3 out of 7 areas and in the total ECERS-R. For these 3 areas and total, t-test results show that scores have declined.

Table I-4 ECERS-R three year differences in ECERS-R scores from 2002-03 to 2005-06.

2005-06 RECAP Annual Report							
ECERS-R Differences Between the Highest ECERS-R Scores in Year 2002-03 and the Current Year 2005-06							
t-Tests for 3 Year Differences							
	----------2002-2003----------			----------2005-2006----------			Differences Between cohorts
Area	n	Mean	Standard Deviation	n	Mean	Standard Deviation	Differences
Space and Furnishings	128	6.1	0.8	128	5.7	0.8	**-0.4***
Personal Care Routines	128	6.0	1.0	128	5.5	1.2	**-0.5***
Language and Reasoning	128	6.3	1.1	128	6.1	1.0	-0.2
Activities	128	5.8	1.0	128	5.5	1.1	**-0.3***
Interaction	128	6.4	1.0	128	6.5	0.8	-0.1
Program Structure	128	6.3	1.1	128	6.0	1.2	-0.3
Parents and Staff	128	6.5	0.6	128	6.6	0.5	-0.1
Total	128	6.2	0.7	128	6.0	0.7	**-0.2***
Note: * Signifies t-Test on differences significant at Pr (t) <=.05							

Just as we want to learn about reasons for an increase in quality, we must be curious about possible reasons for the decreases seen in the years 2003-04 through 2004-05. We have studied some factors which may have contributed to this decline. These factors will also be the subject of continued investigation in future years.

The most obvious reason for a decrease in scores is the real possibility that programs' quality has decreased in these 3 areas. Directors and teachers may not have been attending to quality rubrics. Another possible reason for the decrease in ECERS-R scores is that scoring requirements are becoming more stringent. The authors of the ECERS-R regularly update their resource information with "Notes for Clarification." These "Notes for Clarification" are designed to help assessors and program staff members more clearly specify how quality indicators must be satisfied to receive a positive rating. To keep the RECAP assessment system current with the authors of the ECERS-R, we regularly incorporate the updates into our observation process. Master Observers are provided this information which is to be used in their observation process and it is reviewed in their annual training. Additionally, every teacher and program director receives a copy of the updates every year.

As an example, over the past 2 or 3 years, items within "Personal Care Routines" have become more specific in the requirements necessary to meet the criteria for these "sanitary related items." These items include: hand washing procedures, sanitary practices, and the required tracking and documentation of these occurrences by observers. The 0.5 drop in "Personal Care Routines" over the last 3 years, that was highlighted earlier, may be due to these more stringent interpretations. However, in 2005-06, there were no updates provided by the authors.

An additional analysis of ECERS-R scores in relation to RECAP teaching experience was conducted this year. This analysis is more fully described at the end of this section. However, briefly, we found that teachers with 6 or more years of experience have higher ECERS-R scores by 0.5 in total compared to the teachers who had fewer than 6 years of experience.

Considering that 48 of the 128 RECAP teachers this year were new teachers added in the last two years, previous experience suggests it may take several years to bring up the ECERS-R scores for these new teachers/classrooms.

To repeat an earlier observation, the ECERS-R scale only goes up to 7.0, and as RECAP classrooms approach this cap ("restriction of range"), it becomes increasingly difficult to show yearly increases in scores. Whether the overall RECAP average ECERS-R score is 6.2 (as it was 3 years ago), or 6.0 this year, it is still at a very high quality level.

Additional results can be seen in Tables I-5 and I-6 in Appendix I of the RECAP 2005-06 Annual Report Statistical Supplement. These tables show recent 1-year differences in ECERS-R scores.

ECERS-R and RECAP Teaching Experience

An analysis was conducted again this year to examine the relationship between ECERS-R scores and years of RECAP teaching experience. It can be seen in Table I-7 below that there were 21 teachers new to RECAP this year, and 36 with six or more years of RECAP experience. We can see in Table I-7 and Figure I-8 below that RECAP teaching experience does reflect upon classroom ECERS-R scores. The mean ECERS-R scores does not rise to the 6.0 level until there is at least 4 years of teaching experience in RECAP classrooms.

Note: 28 of the 36 teachers who have 6 or more years of RECAP experience are affiliated with the 3 original RECAP program participants. It is possible that what we are seeing in Table I-7 and Figure I-8 is partly a program effect in addition to a teacher effect.

Table I-7

2005-06 RECAP Annual Report
Mean ECERS-R Score by Number of Years RECAP Experience for Classroom Teachers*

# Yrs RECAP Experience	Frequency	Cumulative Frequency	Pct.	Cumulative Pct.	ECERS-R Mean	Standard Deviation
0	21	21	16.4%	16.4%	5.9	0.7
1	27	48	21.1	37.5	5.9	0.7
2	17	65	13.3	50.8	5.9	0.8
3	9	74	7.0	57.8	5.7	1.1
4	4	78	3.1	60.9	6.0	0.8
5	14	92	10.9	71.9	5.8	0.8
6	3	95	2.3	74.2	6.3	0.5
7	18	113	14.1	88.3	6.2	0.6
8	15	128	11.7	100.0	6.5	0.4

Note: * If there were co-teachers in a classroom, the teacher with the most experience was counted.

Figure I-8 Mean ECERS-R total scores by years of RECAP teacher experience.

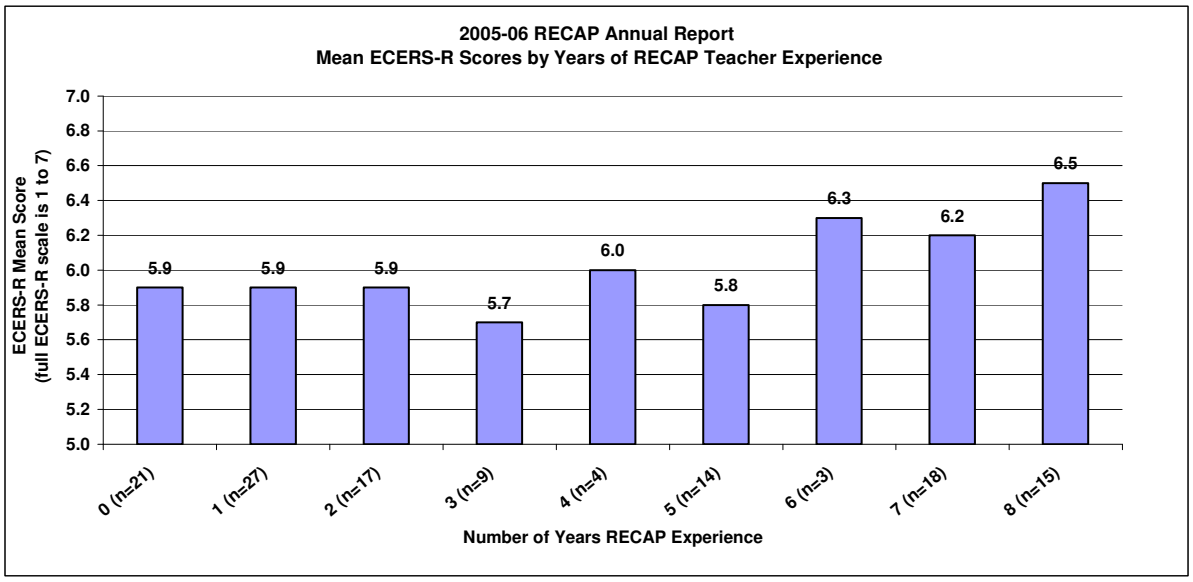
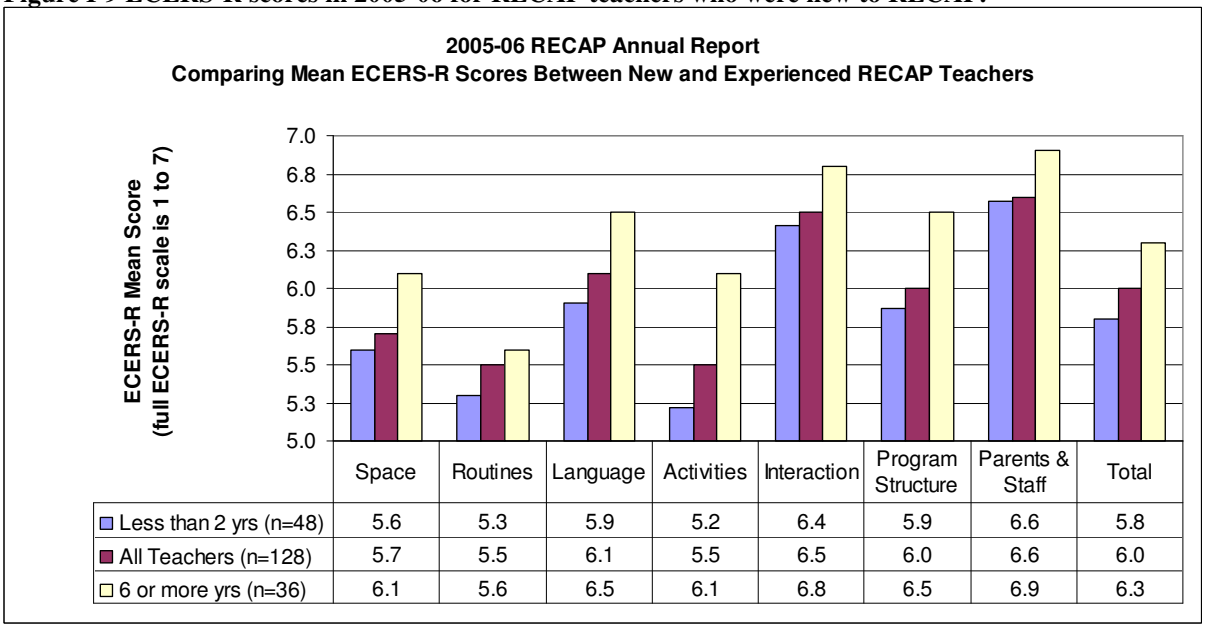


Figure I-9 below shows a comparison between teachers who were new to RECAP during the last 2 years and those with many years of experience. The difference between the new teachers' total ECERS-R scores and those with 6 or more years was 0.5. However, in the activities area, the difference was larger at 0.9. In the language and program structure areas the differences were also quite large at 0.6.

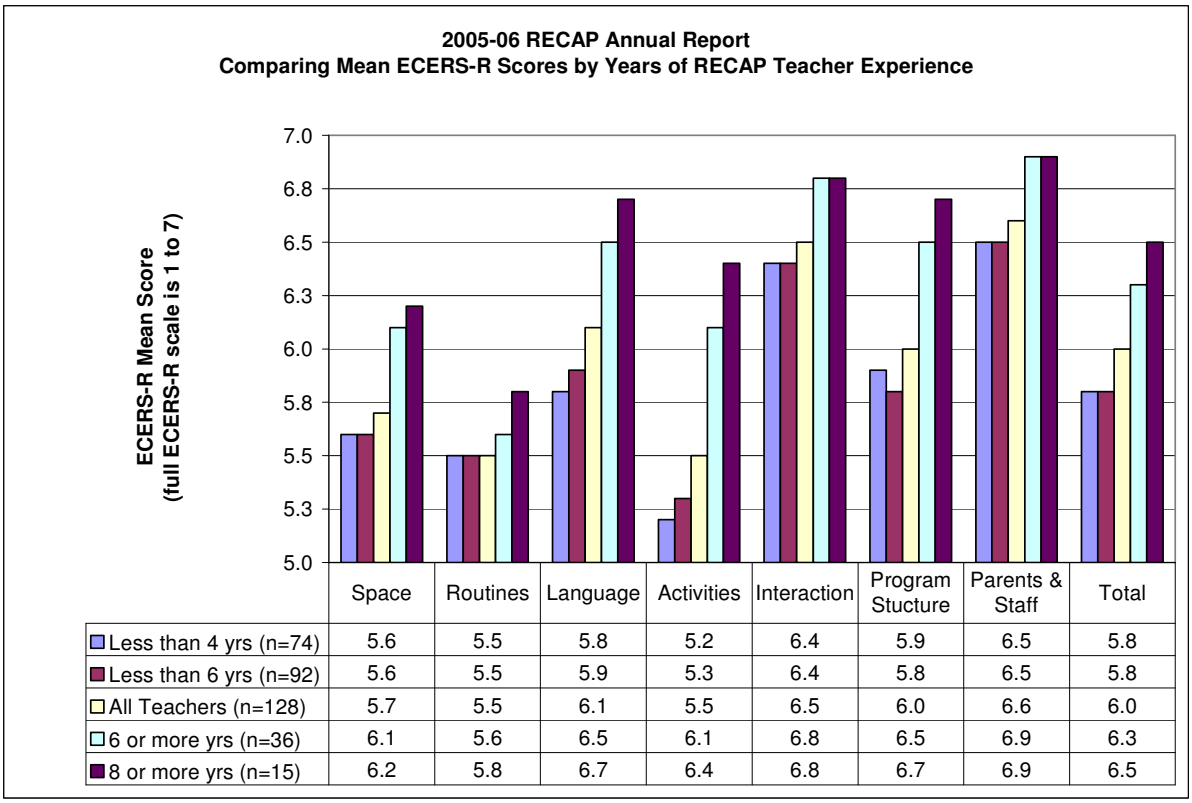
Figure I-9 ECERS-R scores in 2005-06 for RECAP teachers who were new to RECAP.



	Space	Routines	Language	Activities	Interaction	Program Structure	Parents & Staff	Total
Less than 2 yrs (n=48)	5.6	5.3	5.9	5.2	6.4	5.9	6.6	5.8
All Teachers (n=128)	5.7	5.5	6.1	5.5	6.5	6.0	6.6	6.0
6 or more yrs (n=36)	6.1	5.6	6.5	6.1	6.8	6.5	6.9	6.3

Figure I-10 below shows mean ECERS-R scores for various additional levels of teacher experience. We can see in this chart that teachers with 6 or more years of experience have higher total ECERS-R scores by 0.5 compared to teachers who had fewer than 6 years of experience. However, in some ECERS-R areas such as personal routines, the difference was much smaller at 0.1. In the activities area the difference between these groups of teachers was 0.8, much greater than in total ECERS-R.

Figure I-10 Comparing ECERS-R area scores in 2005-06 for teachers by years of experience



	Space	Routines	Language	Activities	Interaction	Program Stucture	Parents & Staff	Total
Less than 4 yrs (n=74)	5.6	5.5	5.8	5.2	6.4	5.9	6.5	5.8
Less than 6 yrs (n=92)	5.6	5.5	5.9	5.3	6.4	5.8	6.5	5.8
All Teachers (n=128)	5.7	5.5	6.1	5.5	6.5	6.0	6.6	6.0
6 or more yrs (n=36)	6.1	5.6	6.5	6.1	6.8	6.5	6.9	6.3
8 or more yrs (n=15)	6.2	5.8	6.7	6.4	6.8	6.7	6.9	6.5

Tables I-8 and I-9 in Appendix I of the RECAP 2005-06 Annual Report Statistical Supplement show the results from t-Tests comparing ECERS-R scores for teachers with different numbers of years of RECAP experience.

The Impact of ECERS-R Interview Items (New Analysis)

Analysis

A new analysis was conducted this year to see what impact, if any, the interview related ECERS-R items had on the overall ECERS-R scores. The 43 ECERS-R items were grouped in several ways, separating the items into those that were based on the master observers interviewing classroom teachers and those items for which interviews are not necessary. The mean scores for these groups were then compared to test for differences. 2004-05 RECAP data was used in this analysis.

Results

Based on the ECERS-R manual, Table I-10 below contains the items of our ECERS-R interview related groups. In Table I-11 below, we can see the differences in mean scores for the different groups. From this table we can see that the mean score with all 43 items included was 5.8 in 2004-05. The mean score for Group 4, without any interview questions, was 5.9. The mean score for Group 4B, including only interview questions, was 5.7. Overall, it can be seen in Table I-11 that there is little difference between the interview related items and non-interview related items, except for those items related to parents and staff (mean=6.4). Some subgroups of interview related questions had a higher mean score and some were lower compared to non-interview questions, but the overall net differences were small, or non-existent.

Table I-10
2005-06 RECAP Annual Report

Items of the Interview Related ECERS-R Groups	
ECERS-R Item #	**The "7 Highlighted Items" ECERS-R Group**
7	Space for gross motor
10	Meals/snacks
11	Nap/rest
13	Health practices
25	Nature/science
27	Use of TV, video, and/or computers
37	Provisions for children with disabilities
ECERS-R Item #	**Parents & Staff Group**
38	Provisions for parents
39	Provisions for personal needs of staff
40	Provisions for professional needs of staff
41	Staff interaction and cooperation
42	Supervision and evaluation
43	Opportunities for professional growth

Table I-11 2005-06 RECAP Annual Report				
Analysis of 2004-05 RECAP ECERS-R scores				
Grouping the ECERS-R Items With and Without the Interview Related Items.				
Means, standard deviations, and Cronbach's alpha reliability by group of items using ECERS-R scores for all programs combined. (Number of classroom scores used n = 129 for all groups)				
Groups - ECERS-R Items Included	**#Items**	**Mean**	**Standard Deviation**	**Cronbach's alpha**
Group1 – All 43 ECERS-R Items	43	5.8	0.8	0.92
Group 2 – Without "Parents & Staff" Items	37	5.7	0.8	0.91
Group 2B – "Parents & Staff" Items Only	6	6.4	0.7	0.64
Group 3 – Without "Parents & Staff" and "7 Highlighted Items" (see Table I-10)	30	5.8	0.8	0.90
Group 3B – "Parents and Staff" Items and "7 Highlighted Items"	13	5.7	0.9	0.72
Group 4 – Without Any Items Involving Interviews	16	5.9	0.8	0.80
Group 4B – All Items Involving Interviews	27	5.7	0.8	0.89
Group 5 – 7 Highlighted Items (see Table I-10)	7	5.1	1.3	0.54

Additional results from this analysis included in Tables I-12 through I-14 can be seen in Appendix I in the RECAP 2005-06 Annual Report Statistical Supplement.

II. Children's Outcomes

COR – Student Performance: Academic, Motor, and Social Skills

How did we measure students' academic, social, and motor skills?

The Child Observation Record (COR) was developed by High/Scope, which is one of the leading centers in the nation for developing and evaluating materials for young children. It is one of the most widely used developmentally appropriate assessment instruments for teachers serving children ages 2.5 to 6.0 years of age. Trained teachers systematically record their observations of children's functioning for 32 items. Children's acquisition of skills is measured on a five-point developmentally sequenced scale with each point representing a level of children's growth along the developmental continuum.

Before teachers use the COR, they must complete COR training. Training is provided for all teachers not previously trained on the COR and for experienced teachers who feel they will benefit from additional training. It is a three-hour session which covers components of the COR, child observation techniques, and hands on training for documenting and scoring. This year, RECAP staff trained 54 prekindergarten teachers and teacher's assistants on the COR.

RECAP has been transitioning to the latest version of the COR over the last 2 years. Because of this transition period, the following brief description of the COR versions and how we used them has been added. From 2000-01 through 2003-04, RECAP used a reduced 21 item subset of the 30-item COR (COR30) that High/Scope developed and published in 1992.

Based upon our earlier analyses, the COR30 measure had the following three empirical subscales, (Fantuzzo et al, 2002):

Empirical Scales	**Item Examples**
1. Cognitive or Academic Skills	"Reading"
2. Coordinated Movement	"Moving to music"
3. Social Engagement	"Relating to other children"

However, High/Scope, the authors of the COR, introduced a new 32-item version of COR (COR32) which was published in 2003. In RECAP 2004-05 and 2005-06 we collected all 32 items using the new COR32 for each student. While we were collecting data which would be used later to factor analyze the COR32, we continued to report COR results using approximations for the subscales used in earlier years with COR30. We approximated the 3 subscales by matching as best as possible each skill item by skill item. Note: The specific items used for each scale are provided in Appendix II of the **RECAP 2005-06 Annual Report Statistical Supplement**.

COR30 versus COR32 equating study

In an effort to test how well the COR30 and COR32 versions compared, and to test the accuracy of our subscale approximations, we conducted an equating study in the fall of 2004. We had each of 19 participating pre-k teachers collect both COR30 and COR32 data for 10 randomly chosen students in their class. Approximately 50% of the teachers completed the COR30 first and the other half completed the COR32 first. We matched scores for both versions of the COR for 187 students.

In the spring of 2005, we analyzed this data by subscale and found significant Pearson correlation coefficients among the scales: r =0.85 for social, 0.82 for academic, and 0.73 for the motor subscale which represents high, positive correlation between scales. We also found that there was a Pearson correlation coefficient of 0.88 between COR versions when all 3 subscales (COR Total) were combined (n=187). The results from this study the hypothesis that the COR30 and COR32 versions were indeed measuring similar skills, and that our approximations of the subscales could be used for our analysis.

This year's COR outcomes

All COR outcomes reported for 2004-05 and 2005-06 in this year's report are based on using the new COR32 measure and approximating the 3 subscales that were developed with the earlier COR30 as described above.

Next year, in 2006-07, we will be introducing the use of the new COR32, as a subset containing 23 items, and 4 new subscales. A description of these changes including the 4 new subscales is included at the end of this section under "**A New 23-Item COR for RECAP in 2006-07."**

As mentioned above, for 2005-06, we collected data using the new COR32 and approximated the earlier version three COR30 subscales. The alpha reliability (internal consistency) for the approximated COR subscales in 2005-06 continued to be very high:

- 0.86 (n=1894) for COR Motor
- 0.92 (n=1903) for COR Social
- 0.89 (n=1840) for COR Academic

Note: The number of children reported below for change scores represents only those who had complete fall and spring measures from the same classroom/teacher; This means there were far more pupils who actually attended RECAP-affiliated programs.

At what level did students enter prekindergarten and how much did they improve by the end of the school year?

Overall, we can see in Table II-1 below that the time 1 mean scores ranged between 2.33 and 2.73 depending upon the subscale. The mean changes ranged between 1.06 and 1.11 also depending upon the skills area.

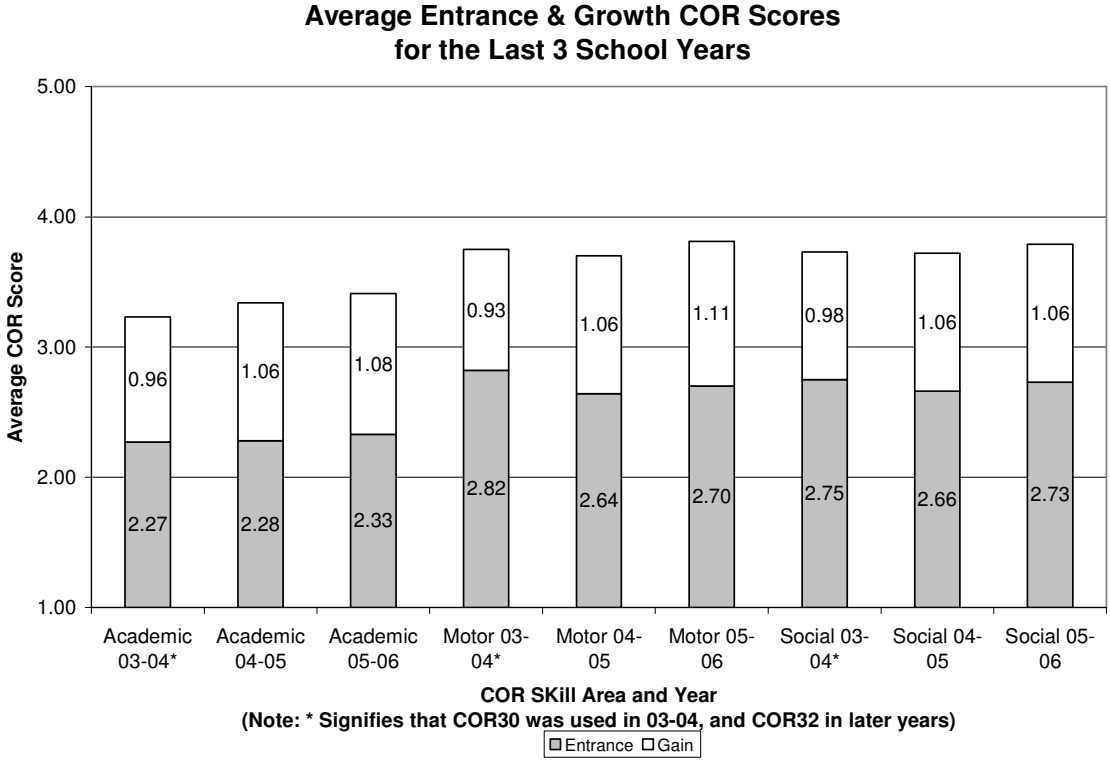
Table II-1

2005-06 time 1 COR and COR Changes*

	Time 1				Change Score			
Skill Area	**N**	**Mean**	**Std. Dev.**	**Std. Error of Mean**	**N**	**Mean**	**Std. Dev.**	**Std. Error of Mean**
Academic	1931	2.33	0.83	0.02	1523	1.08	0.73	0.02
Motor	1930	2.70	0.83	0.02	1510	1.11	0.81	0.02
Social	1932	2.73	0.84	0.02	1523	1.06	0.75	0.02

Note: * This data includes children of all ages in RECAP.

Figure II-1 Average entrance COR scores and average growth scores for the last 3 school years



Looking at Figure II-1 above, in 2005-06, students grew approximately 1.06 points or higher in all three areas. This year the student entrance COR scores were about the same compared to the previous 2 years.

What is the change in the COR expected by aging alone?

High/Scope, for the Child Observation Record, does not report the average increases for either the total score or the subscales due to development/aging. The average duration between time 1 and time 2 data collection was 7 months, from October to May, so a portion of the 1.06 to 1.11 growth is simply the result of developing and growing older. A rough indicator of the impact of aging on the COR, used in previous years, can be calculated as the average difference at time 1 between students who were seven months apart. To calculate this indicator, a regression was run between the time 1 COR subscale scores and age. Based on the information from the regression, the average increase in COR by students who were 7 months older was used as the expected value due to aging. This procedure was used in previous years. Regression coefficients were 0.58, 0.49 and 0.47 for academic, motor and social subscales respectively; resulting in 7 month developmental growth estimates of 0.34, 0.28 and 0.28 for each respective subscale.

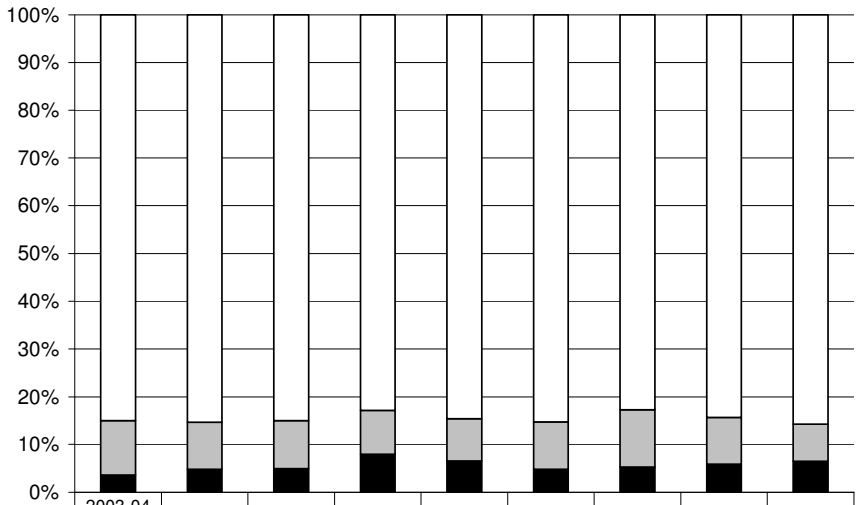
The adjustment procedure can be criticized because it assumes that the entrance level of students is equivalent to the average gain in a specific period of time. Admittedly, it is a flawed estimate, but we believe it to be better than not attempting to correct for developmental change at all. When the phrase "at or above expectations" is used it should not be confused with "meeting state standards" or other similar outside criteria. Expectations here are formed by the scores of the students entering prekindergarten and are not criterion-referenced to any standard.

How were the COR child outcome results this year?

Figure II-2 below shows the proportion of students who had growth above the expected level and those whose growth was negative.

More than 80% of the students had COR change scores above developmental expectations. Only a small percentage of students show "negative growth." Additionally, those with negative growth in motor skills were considerably less than in the previous 2 years.

Figure II-2 COR results by area and by year



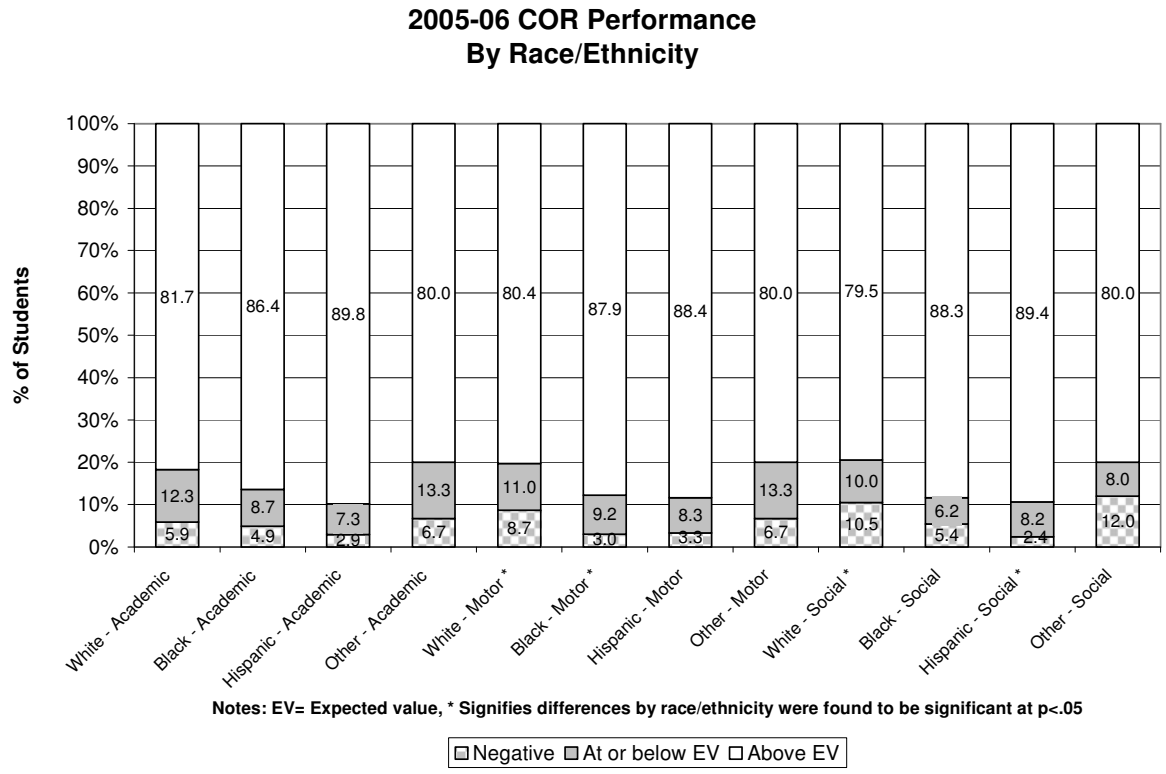
	2003-04 Academic *	2004-05 Academic	2005-06 Academic	2003-04 Motor*	2004-05 Motor	2005-06 Motor	2003-04 Social*	2004-05 Social	2005-06 Social
Change above Expectations	85.0	85.4	85.0	82.8	84.6	85.2	82.7	84.3	85.0
Change Scores at or below Expectations	11.4	9.9	10.1	9.2	8.8	9.9	12.0	9.8	7.7
Neg. Change Score	3.6	4.8	4.9	8.0	6.6	4.8	5.3	5.9	6.4

(Note: * Signifies that COR30 was used in 03-04, and COR32 in later years)

Are there any differences in outcomes by race/ethnicity?

We found some detectable differences by race/ethnicity this year. From Figure II-3 below we can see that White students showed significantly less growth above expectations in motor and social skills (Pearson $\chi^2 = 14.75$, $p<.05$). Hispanic students showed the most growth in social skills (Pearson $\chi^2 = 6.93$, $p<.05$).

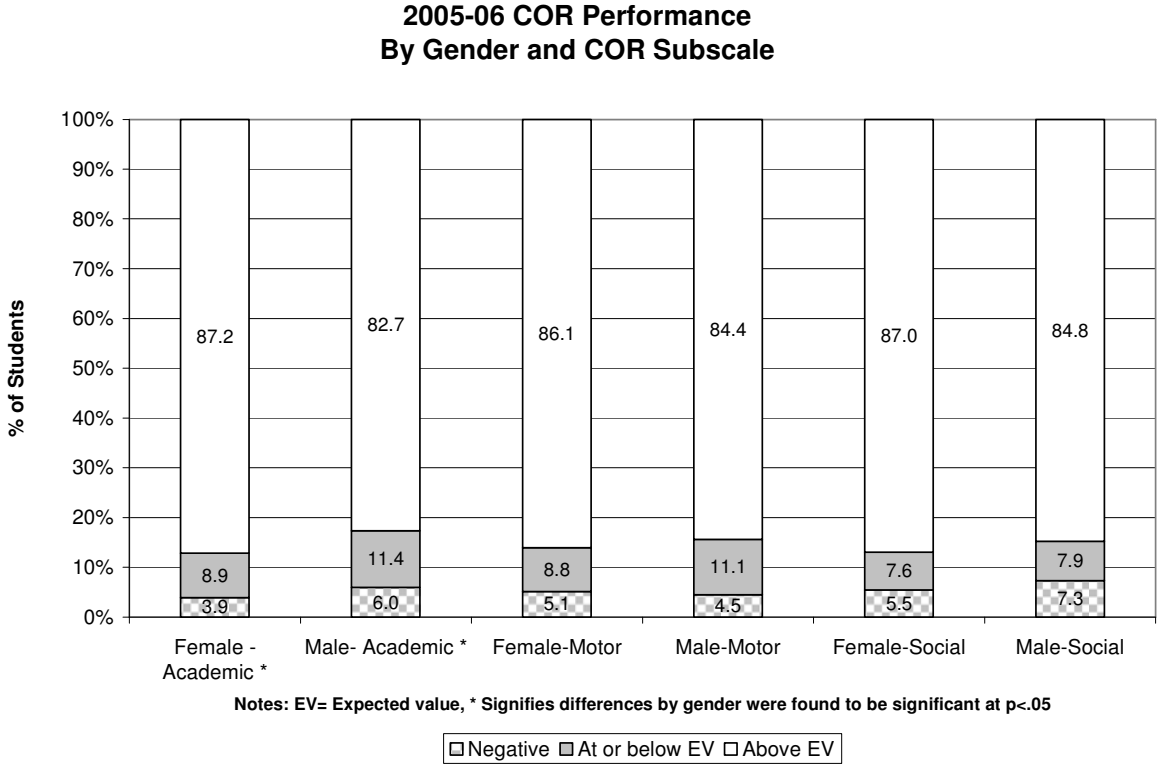
Figure II-3 2005-06 COR growth by race/ethnicity.



Are there any differences in the COR outcomes by gender?

This year, we found detectable differences by gender in the growth of the academic COR subscale. Female students grew above expectations significantly more than male students in the academics skills (Pearson $\chi^2 = 6.52$, $p<.05$). From Figure II-4 below it can be seen that girls actually grew above expectations more than boys in all 3 subscales, but the Chi-square test differences were significant only in academics.

Figure II-4 2005-06 COR Growth by Gender



Is quality of classroom performance linked with student COR performance?

No, significant correlations were not found this year. Correlations at the aggregate classroom level were run after removing outliers in the ECERS-R total score (n=2, ECERS-R below 3.9 removed) identified using stem-and-leaf graphs.

This year, no significant correlation was found between the ECERS-R score and the average growth in any of the COR subscales or total. For the COR subscales and total: academic growth, n=101, r=0.097, p>.05; for motor growth, n=101, r=0.144, p>.05; for social growth n=101, r=0.183, p>.05; and for COR total growth n=101, r=0.136, p>.05.

Last year, there was a small, positive correlation between the ECERS-R score and the average growth in the Overall COR scores which was significant (n=99, r=0.255, p<.05). Also, last year each of the COR subscales was also positively correlated with the ECERS-R score. This was true for the academic growth, (n=99, r=0.198, p<.05); for the motor growth, (n=99, r=0.317, p<.05), and for the social growth (n=99, r=0.297, p<.05).

Is there a relationship between high and very high quality environments and improvement of students' COR scores?

As in past years, we investigated this question by classifying the classrooms into two groups: high quality and very high quality groups based on the median ECERS-R score. A one-way multivariate analysis of covariance (MANCOVA) was conducted to determine the effect of high and very high quality on COR growth variables while controlling for the gender and race/ethnicity of the students in each class.

This year no significant differences were found in the outcomes by quality group (Wilks' Lambda = 0.921, F(3,93)=2.660, p>.05). Also last year no significant differences were found in the outcomes by quality group (Wilks' Lambda = 0.955, F(3,91)=1.446, p>.05).

What do these results mean?

This year, we neither detected any significant correlations with overall COR growth, nor did we find any relationships with our MANCOVA.

Consequently, replicated results suggest no measurable link between ECERS-R scores and change in the COR scores for "high" compared with "very high" quality classrooms. These results may be due to our operational definition that differentiates high scores and very high scores.

COR Scores by Age Group

The purpose of the following analysis is to see what impact student age had on total COR scores. Table II-2 below displays the pre and post period total COR scores by age group and by year.

Table II-2 COR scores by age group for all programs

COR Scores by Age Group for All Programs								
	2004-05				2005-06			
	Pre		Post		Pre		Post	
Score Range	Number of 3 Year Olds	Number of 4 Year Olds	Number of 3 Year Olds	Number of 4 Year Olds	Number of 3 Year Olds	Number of 4 Year Olds	Number of 3 Year Olds	Number of 4 Year Olds
1.0 - 1.4	113	104	13	3	117	71	16	2
1.5 - 2.4	257	683	118	82	179	538	131	53
2.5 - 3.4	94	664	219	434	103	670	185	357
3.5 - 4.4	24	198	87	652	120	185	63	679
4.5 - 5.0	0	5	10	281	0	26	11	298
Total Count	488	1654	447	1452	519	1490	406	1389
Mean Score	2.04	2.55	2.88	3.71	2.01	2.65	2.77	3.81

Table II-3 shows that in 2005-06, the 3-year-olds gained 0.93 in total COR score and the 4-year-olds gained an average 1.16.

Table II-3 COR growth by age group for all programs

COR Growth by Age Group for All Programs				
	2004-05		2005-06	
	Gain		Gain	
Change Range	Number of 3-Year-Olds	Number of 4-Year-Olds	Number of 3-Year-Olds	Number of 4-Year-Olds
Less than 0	18	21	22	36
0.00 - 0.49	61	146	51	144
0.50 - 0.74	48	160	41	118
0.75 - 1.00	72	224	63	198
Greater than 1.00	159	741	131	703
Total Count	358	1292	308	1199
Mean Score Change	0.95	1.14	0.93	1.16

Table II-4 below shows the percentage of students that were successful. "Successful" students are defined as those with gains of 0.50 points or greater on one or more of the three COR subscales: motor, social, and academic skills. The percentage of 4-year-olds that were successful in 2005-06 was 93%. The percentage of 3-year-olds that were successful was 90%.

Table II-4 Student success rates as measured by COR growth

Student Success Rates as Measured by COR Growth				
Students with pre-post matches, who had gains of 0.50 points or greater on one or more of the three COR subscales: motor, social, and academic skills				
	2004-05		2005-06	
	Number of 3-Year-Olds	Number of 4-Year-Olds	Number of 3-Year-Olds	Number of 4-Year-Olds
Total Count	358	1292	308	1199
Total Successful	329	1225	278	1113
Percent	92%	95%	90%	93%

From the t-tests between group means in Table II-5 we can see that there are significant differences in COR group means between three-year-olds and four-year-olds. This finding is not surprising, but these tests document the differences.

Table II-5 t-Tests comparing 2004-05 3-year-olds with 4-Year-olds

t-Tests Comparing 2004-05 3-Year-olds with 4-Year-olds							
	Group of 3-Year-olds			Group of 4-Year-olds			Differences in Age Groups
	n	Mean	Std Dev	n	Mean	Std Dev	Differences
COR Total Time 1	488	2.04	0.72	1654	2.55	0.74	**-0.51***
COR Total Time 2	447	2.88	0.77	1452	3.71	0.75	**-0.83***
COR Total Growth	358	0.95	0.60	1292	1.14	0.60	**-0.19***
Note: * denotes significant at Pr (t) <=.05							

t-Tests Comparing 2005-06 3-Year-olds with 4-Year-olds							
	Group of 3-Year-olds			Group of 4-Year-olds			Differences in Age Groups
	n	Mean	Std Dev	n	Mean	Std Dev	Differences
COR Total Time 1	416	2.01	0.72	1490	2.65	0.75	**-0.63***
COR Total Time 2	406	2.77	0.81	1389	3.81	0.72	**-1.04***
COR Total Growth	308	0.93	0.65	1199	1.16	0.67	**-0.24***
Note: * denotes significant at Pr (t) <=.05							

A New 23-Item COR for RECAP in 2006-07

Overview

The Child Observation Record has recently undergone significant iterations, both at High/Scope as well as modifications conducted by RECAP. The authors of the COR at High/Scope introduced a new 32-item version of the COR in 2003. The previous 1992 version was the 30-item COR. For the past two years we have used the "new" 2003 32-item COR.

A series of RECAP data analyses were recently completed on the new COR and reported on in June 2006. A full report on the factor analysis conducted by RECAP can be found in **A Factor Analysis of the 32-Item Child Observation Record (COR)** (Hightower, Gramiak, Metzger, and Forbes-Jones; June, 2006; Children's Institute Technical Report No.T06-0001). As a result of this work, beginning in the fall of 2006-07, RECAP will be distributing and using a new, reduced set of the 23-items COR based on the 2003 32-item COR version.

Summary of Results

The new 32-item COR yielded the following four-dimensional construct structure for 4 year-olds:

- Initiative & Social Skills
- Movement & Music
- Math & Science
- Language & Literacy

These 4 skill areas had strong factor convergence, were consistent between 2 sample years, and worked especially well to discriminate the skill levels of 4-year-olds. While 4-year-olds represented the majority of our sample (77% of the prekindergarten students), these 4 factors also proved be useful to assess the skills for younger and older children. Compared to the results from 4-year-olds, 3-year-old children tended to have "Initiative & Social Relations" and "Movement & Music" skills more closely tied together. Also, compared to 4-year-olds, 5-year-olds tended to have "Language & Literacy" and "Math & Science" skills more closely related.

In addition to testing COR constructs, another goal of these analyses was to reduce, if possible, the number of COR items that a teacher would be required to assess, which could save a significant amount of staff time. On the basis of our findings and comparing results across two years, and multiple analytic techniques, we were able to eliminate 9 of the 32 items and maintain good psychometric properties of the proposed scales. After eliminating items that were either inconsistently loading on different factors, or were found to have little impact on factor makeup, 23 items remained. A final four-dimensional structure for

four-year-olds was found which had strong factor convergence, and consistency across two sample years.

Discussion

Among Rochester pre-k teachers, there is generally broad agreement that High/Scope's latest iteration represents a significant improvement over its predecessor.

The new COR has at least 3 advantages:

1) The chief improvement cited by many teachers is that the items are simply better at identifying specific developmental areas and that the items marked for growth are more "on target" compared to the previous COR30.

2) Subsequent RECAP analyses confirm the overall improvement from High/Scope, and built upon this improvement. Using the previous version of the COR, it was not possible to reliably identify specific academic areas, such as literacy or math. This is why the term "academic" has been used. This situation is not unique to the COR; examination of other instruments for this age group shows similar problems; it is simply quite difficult to identify such academic specificity with this young age of children. The results from RECAP's factor analyses on data from 4-year-olds revealed that we can now reliably assess discrete "Language & Literacy" and "Math & Science" domains for this age group.

3) A third achievement from the RECAP's factor analyses on the 32-item COR was to identify redundant items and those items that did not consistently measure the purported constructs. When teachers skip these nine items, the integrity of empirical constructs assessed by the 32-item COR is preserved and there is a 30% reduction in teacher work.

T-CRS – Students at Risk for Socio-Emotional Problems

How did we measure socio-emotional competencies and problems?

The Teacher-Child Rating Scale (T-CRS) consists of 32 items assessing different aspects of a child's socio-emotional adjustment. Items are grouped into four empirically derived and confirmed scales assessing:

1) Task Orientation
2) Behavior Control
3) Assertiveness
4) Peer Social Skills

Each of these scales contains 8 items: four positively and four negatively worded items. All items are measured on a 5-point Likert scale according to how much the teacher agrees each item describes the child. Normative Tables are provided for urban, suburban, and rural; male and female. On the national norming sample the T-CRS alpha coefficients of internal consistency range from .87 to .98 with a median of .94. Studies correlating the T-CRS with the Walker-McConnell and Achenbach's scales suggest strong convergent and divergent concurrent and construct validity (Perkins, P.E. & Hightower, A.D. (1999, 2001).

Students who scored below the 15 percentile (approximately 1 standard deviation) in any T-CRS subscale were considered to be at risk in that particular area.

The alpha reliabilities (internal consistency) of the T-CRS subscales this year were:

- 0.91 (n=2028) for Task Orientation
- 0.93 (n=2009) for Behavior Control
- 0.94 (n=1995) for Peer Sociability
- 0.89 (n=2001) for Assertive Social Skills.

How many students have socio-emotional risk factors at entrance into prekindergarten?

Table II-6 below shows the percentage of students with socio-emotional risk factors at entrance into pre-kindergarten: 11% of students enter preschool with multiple socio-emotional risk factors, and an additional 11% enters preschool with a single socio-emotional risk factor.

Table II-6 displays the number of students with socio-emotional risk factors at time 1.

Table II-6				
Number of Students with Socio-Emotional Risk Factors at Time 1				
	2004-05		**2005-06**	
	Frequency	**Percentage***	**Frequency**	**Percentage***
No risk factors	1695	75.0%	1574	77.3%
Behavior control only	51	2.3	57	2.8
Assertive social skills only	76	3.4	57	2.8
Peer sociability only	55	2.4	50	2.5
Task orientation only	80	3.5	67	3.3
Multiple risk factors	303	13.4	231	11.3
Number of valid responses	2260	-	2036	-
Total RECAP students	2790	-	2531	-
Notes: * Signifies that percentage is calculated from number of valid responses.				

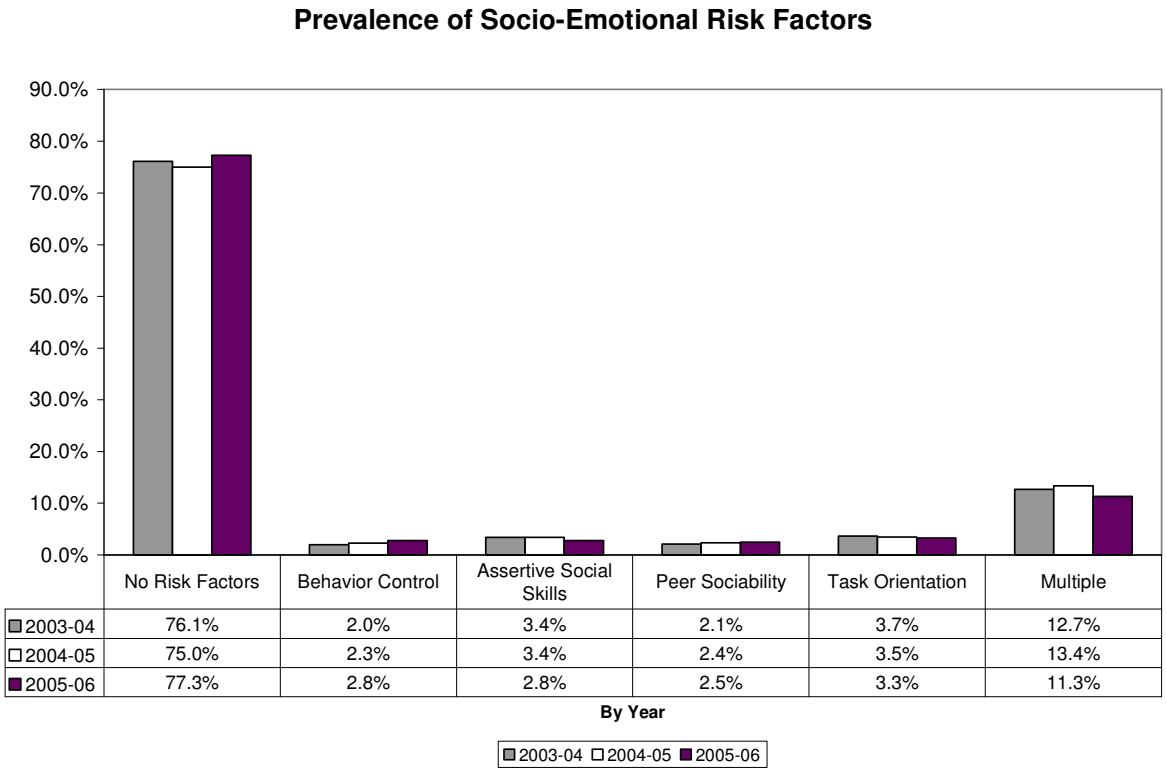
Student demographics and the prevalence of risk factors

This year there were gender differences found in the number of socio-emotional risk factors by risk factor type at entrance into prekindergarten, but no race/ethnicity differences were found.

A cross tabulation of gender with the number of risk factors was performed to determine if there was a difference in the risk factors by gender. A significant association was found (χ^2= 21.3, $p<.05$). 4.4% of boys had a behavior control risk factor compared to only 1.4% of the girls. However, the total number of risk factors was very similar between genders; 23% of the boys had 1 or more risk factors compared to 22% of the girls.

Another cross tabulation of race/ethnicity with the number of risk factors was performed to determine if there was a race/ethnicity difference; no statistically significant association was found (χ^2= 9.782, $p>.05$).

Figure II-5 Prevalence of socio-emotional risk factors at entrance into prekindergarten for the last 3 years.



	No Risk Factors	Behavior Control	Assertive Social Skills	Peer Sociability	Task Orientation	Multiple
2003-04	76.1%	2.0%	3.4%	2.1%	3.7%	12.7%
2004-05	75.0%	2.3%	3.4%	2.4%	3.5%	13.4%
2005-06	77.3%	2.8%	2.8%	2.5%	3.3%	11.3%

From looking at Figure II-5 above, there do not appear to be any noticeable changes in the percentage of students with any of the socio-emotional risk factors this year, when compared to the previous two years. There does appear to be random fluctuation in the year-to-year numbers.

Do students with socio-emotional problems have a different academic, social and motor profile at entrance into prekindergarten?

A one-way multivariate analysis of covariance (MANCOVA) was conducted to determine the association between time 1 socio-emotional risk status and time 1 COR subscales while controlling for race/ethnicity and gender. Just as in the previous two year's findings, there were significant differences in the average (mean) COR scores by time 1 socio-emotional risk status (Wilks' Lambda = 0.886, $F(15,4754)=14.261$, $p<.001$). Figure II-6 below graphically displays differences in initial COR scores by initial risk status for 2004-05. Figure II-7 below shows the current year 2005-06 results.

Comparing Figures II-6 and II-7 we can see similar results in student's socio-emotional risks in back to back years. Table II-7 below shows the actual number of students by each risk status used in this analysis.

Figure II-6 2004-05 initial COR scores by socio-emotional risk status.

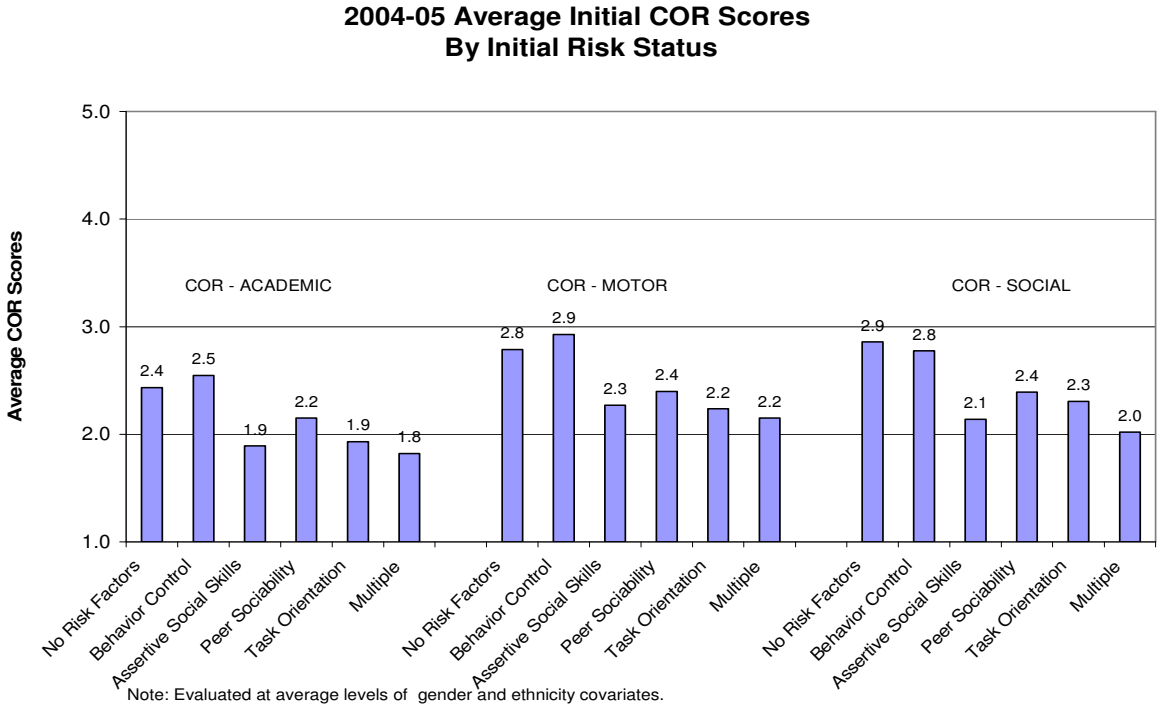


Figure II-7 2005-06 initial COR scores by socio-emotional risk status.

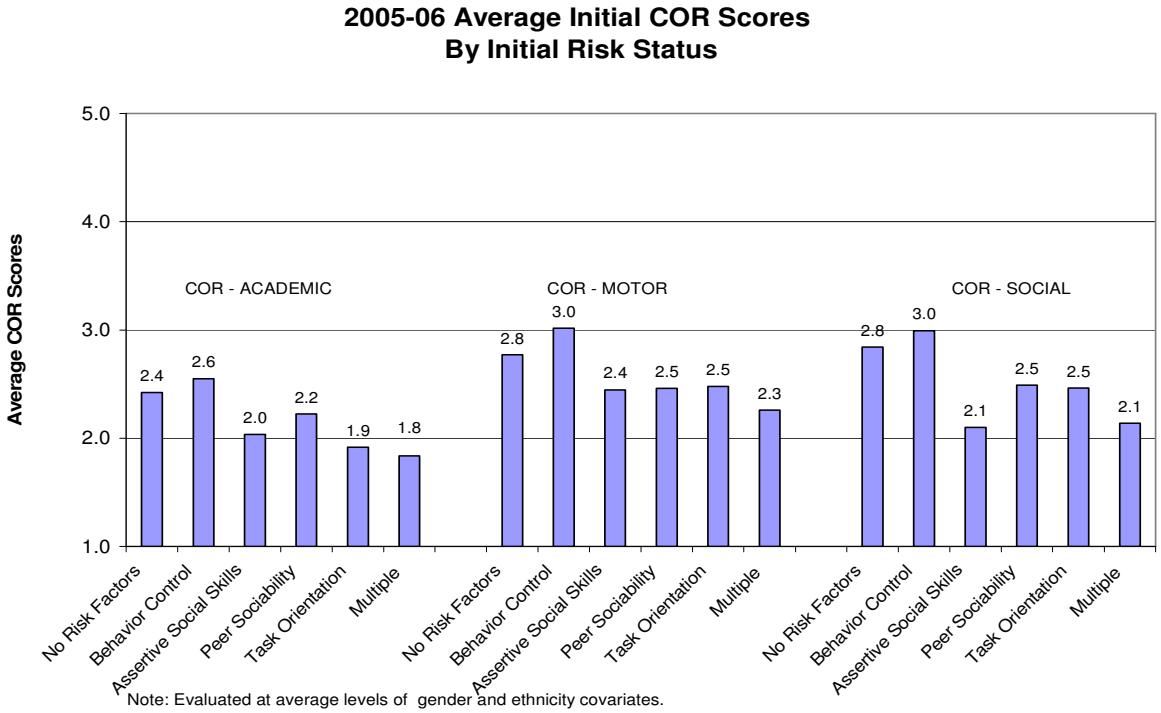


Table II-7				
RECAP 2005-06 Annual Report				
Number of Students with Socio-Emotional Risk Factors and COR Scores at Time 1				
	2004-05		**2005-06**	
	Frequency	**Percentage***	**Frequency**	**Percentage***
No risk factors	1484	76.0%	1339	77.2%
Behavior control only	38	2.0	51	2.9
Assertive social skills only	64	3.3	47	2.7
Peer sociability only	50	2.6	48	2.8
Task orientation only	71	3.6	58	3.3
Multiple risk factors	245	12.6	191	11.0
Number of valid responses	1952	-	1734	-
Total RECAP children	2790	-	2531	-
Notes: * Signifies percentage is calculated from number of valid responses.				

Again this year, pairwise comparisons were used to reveal some interesting patterns. For the past 3 years, we have seen that students with a single risk factor at time 1 are generally rated lower than students with no risk factors with one exception: if the risk is behavior control. Students with behavior control issues, but no other risk factors, were usually rated similarly to students with no risk factors in the academic, motor, and social areas. However, this year for the first time in 3 years, motor skills were slightly different for students with a behavioral control risk and student with no risks.

Last year there were no differences in any of the COR subscales for students with the behavior control risk factor and students with no risk factors.

2005-06 pairwise comparisons results: for cognitive, no risk factors compared with behavior risk, the mean difference =-.130, std. error=.109, $p>.05$; for motor, no risk factors compared with behavior risk, the mean difference =-.244, std. error=.114, $p<.05$ (significance was at p=.033); for social, no risk factors compared with behavior risk, the mean difference =-.151, std. error=.112, $p>.05$.

However, in the main, we can see in Figures II-6 and II-7 above that those students with multiple socio-emotional risk factors at time 1 had fewer skills than students with no risk factors. This year, students having multiple risk factors were consistently found to have fewer skills than students having a single risk factor, for each and every risk factor.

Demographic differences in outcomes for students with risk factors

Just as in prior years, the demographic characteristics of the students, controlling for the time 1 socio-emotional risk profile, were significantly correlated with the outcomes examined.

Race/Ethnicity differences

This year, white students with risk factors were found to have scored about 0.3 higher than non-white at-risk students in the academic and social skills means. The motor skills were not different for white students compared to non-white. Considering that the standard deviation for COR scores is 0.8, the actual effect size for the academic and social skills is about 0.4 (0.3 divided by 0.8). Last year white students with risk factors were not different than non-white students at risk in any of the COR subscales.

This year Black and Hispanic students with risk factors were not different than non-Black and non-Hispanics respectively.

Gender differences

Gender differences were once again seen this year: male students scored lower than females with comparable risk factors in all three subscales. Boys were 0.175 lower in academic, 0.175 lower in motor, and 0.236 lower in social skill means. These similar differences were also seen in the last 3 years.

For boys this year: Wilks' lambda = 0.978, $F(3,1722)=13.072$, $p<.05$; academic: $b=-0.175$, $t=-4.769$, $p<.05$; motor: $b=-0.175$, $t=-4.559$, $p<.05$; social: $b=-0.236$, $t=-6252$,$p<.05$.

Do students with socio-emotional problems have a different pattern of growth during prekindergarten?

A one-way multivariate analysis of covariance (MANCOVA) was conducted to determine the association between time 1 risk statuses and COR change scores while controlling for race/ethnicity and gender status. This year, there were significant differences in the average COR growth scores by time 1 socio-emotional risk status (Wilks' Lambda = 0.978, $F(15,3711)=1.982$, $p<.05$).

Last year, there were also significant differences in the average COR growth scores by time 1 socio-emotional risk status (Wilks' Lambda = 0.983, $F(15,4098)=1.657$, $p<.05$).

In Figure II-8 below we can see last year's pairwise comparisons, based on means adjusted for race/ethnicity and gender. These results demonstrated that students who had initial multiple socio-emotional risks grew approximately the same or a greater amount during the academic year in all three areas compared to students who initially presented no socio-emotional risk factors. Looking at Figure II-9 also below, for this year's results, we can see the same result held true for the motor and social skills, but not so for the academic skills. For academic skills, the no risk students performed much better than the multiple risk students. Table II-8 below shows the actual number of students by each risk status in this analysis.

Another observation from both last year and this year, in Figures II-8 and II-9 respectively, is that students who had a single peer sociability risk factor had approximately equal or greater increases in COR growth for all 3 COR subscales, when compared to students with other risk factors or no risk factors.

Figure II-8 2004-05 COR change scores by socio-emotional risk status

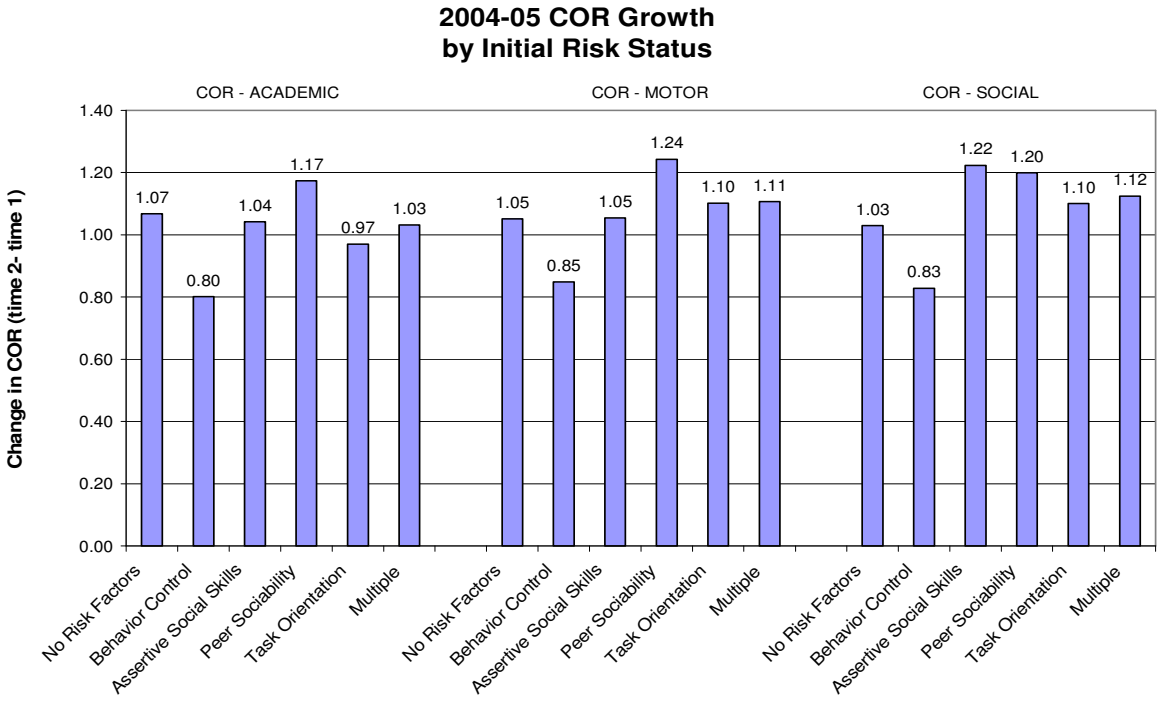
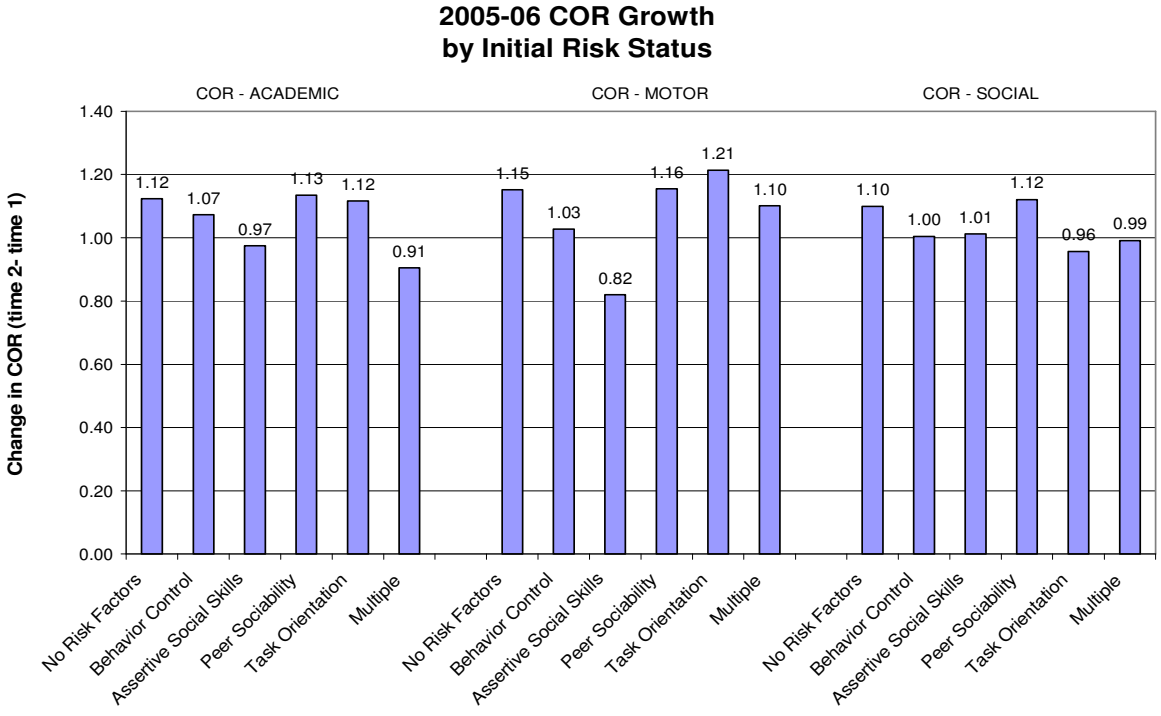


Figure II-9 2005-06 COR Change scores by socio-emotional risk status



Note: Marginal means evaluated at average levels of the gender and race/ethnicity covariates.

Table II-8 students with socio-emotional risk factors and COR scores at time 1 and time 2.

Table II-8				
Number of Students with T-CRS Socio-Emotional Risk Factors and COR scores at time 1 and time 2				
	2004-05		**2005-06**	
	Frequency	**Percentage***	**Frequency**	**Percentage***
No risk factors	1132	75.7%	1058	78.0%
Behavior control only	29	1.9	37	2.7
Assertive social skills only	48	3.2	36	2.7
Peer sociability only	38	2.5	43	3.2
Task orientation only	52	3.5	43	3.2
Multiple risk factors	197	13.2	139	10.3
Number of valid responses	1496	53.6% **	1356	53.6% **
Total RECAP children	2790	-	2531	-
Notes: * Signifies percentage of valid responses ** Signifies percentage of total students				

Race/Ethnicity differences

This year no differences due to race/ethnicity were found in this particular analysis.

For Black students: Wilks' lambda =0.996, F(3,1344)=1.837, p>.05
For Hispanic students: Wilks' lambda =0.997, F(3,1344)=1.349, p>.05
For White students: Wilks' lambda =0.998, F(3,1344)=0.891, p>.05

Last year, based on the results from this one-way MANCOVA, Black and Hispanic students who had socio-emotional risks were not found to have a significantly different COR growth patterns when compared to non-Blacks and non-Hispanics, respectively.

For Black students: Wilks' lambda =0.997, F(3,1484)=1.656, p>.05
For Hispanic students: Wilks' lambda =0.996, F(3,1432)=1.369, p>.05

However White students last year did show a very small positive difference compared to non-White students in this particular analysis, but only for the COR social subscale:

For White students: Wilks' lambda = 0.992, F(3,1484)=3.738, p<.05;
Academic: b=+0.089,t=+1.054,p>.05; Motor: b=+.057, t=+0.610, p>.05; Social: b=+0.249, t=+2.942,p<.05.

Gender differences

This year, like last year, the gender of the students who had socio-emotional risks was not found to have a significant association with COR growth (Wilks' lambda =0.997, $F(3,1344)=1.137$, $p>.05$). This result was also true in last year's MANCOVA results: (Wilks' lambda =0.997, $F(3,1484)=1.369$, $p>.05$).

What do these results regarding socio-emotional risks and COR growth mean?

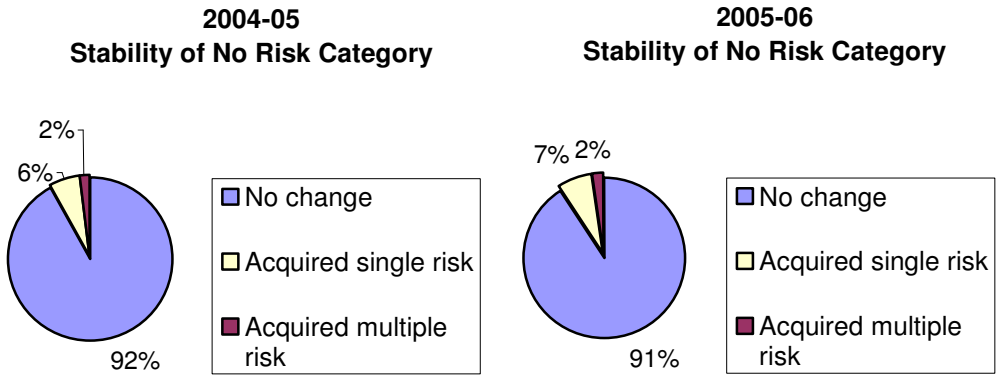
The initial socio-emotional risk status of students does not seem to impair the acquisition of skills in academic, social and motor areas as measured by the COR. Indeed, students with initial multiple risk factors in the socio-emotional domain acquired motor and social skills at the same rate as students who presented no risk initially.

Looking at this year's results in Figure II-9 above, with a couple of exceptions, it appears that students who initially came to prekindergarten with lower skills and more risks gained as much as those students who did not have such risks. The exceptions would be the student group with multiple risks and academic skills growth and the student group with a single social assertive risk and the motor skills growth.

Differences in the rate of growth by race/ethnicity and gender were non-existent this year for this particular set of analyses.

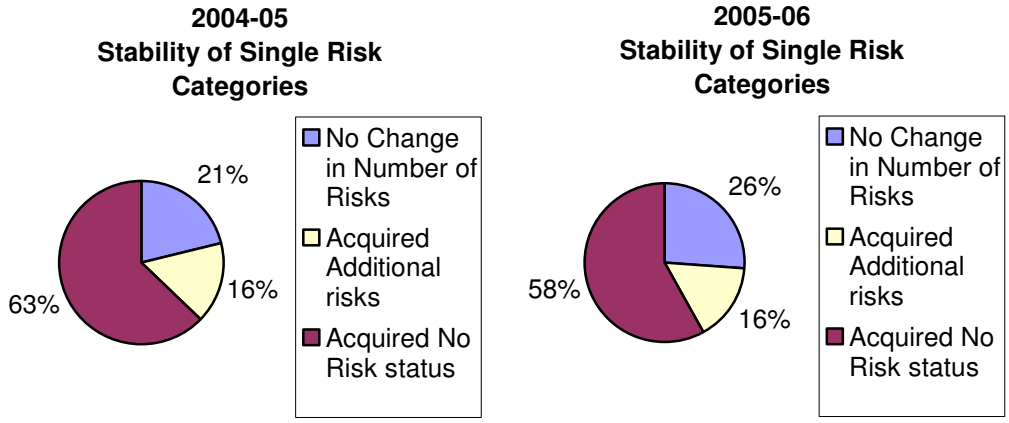
How stable are these risk factors over the prekindergarten year?

Figure II-10 pie charts for the last 2 years, showing stability of socio-emotional risk factors: not at risk at time 1.



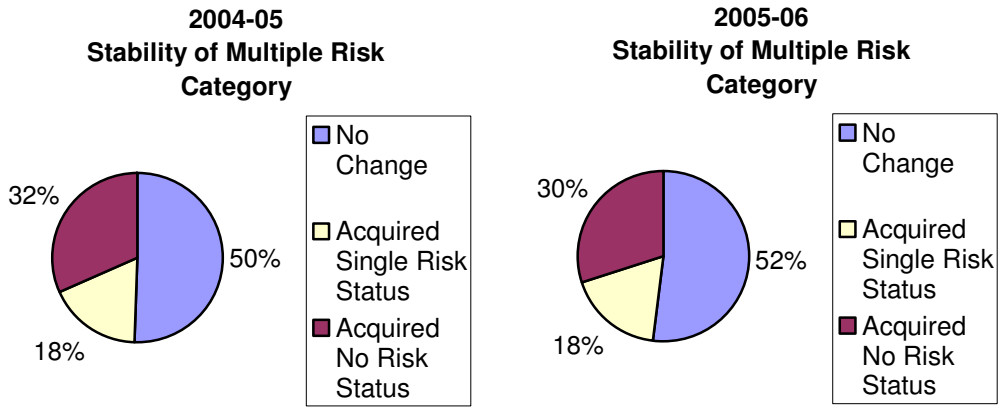
From Figure II-10 above, during 2005-06, 91% of students who were not initially at risk remained so at time 2, while 7% acquired one risk and 2% acquired multiple risks. There is very little change from last year's results for this risk group.

Figure II-11 pie charts for the last 2 years, showing stability of socio-emotional risk factors: single risk factors at time 1.



Looking at Figure II-11 above, during 2005-06, of the students who had a single socio-emotional risk status at time 1, 58% acquired no risk status by time 2, 26% had no change on the number of risks and 16% acquired additional risk factors. The percentage of students with a single risk, who acquired multiple risks this year, was the same as in 2004-05. There was a 5% decrease in the number of single risk students at time 1 who acquired no risk status this year compared to last year.

Figure II-12 pie charts for the last 2 years, showing stability of socio-emotional risk factors: multiple risks at time 1.



Looking at Figure II-12 above, of the students that presented multiple socio-emotional risks at time 1, 52% still had multiple risks at time 2 in 2005-06, 18% reduced the number of risks to a single one this year, and 30% acquired no risk status by time 2 this year. These results were similar to last year.

Can the quality of classroom performance be linked with the improvement of students who are at risk socio-emotionally?

No, the correlation between the ECERS-R classroom scores and the percentage of students in those classrooms who developed less socio-emotional risk factors was not significant. For this analysis, correlations at the aggregate classroom level were run after removing outliers (n=2, ECERS-R below 3.9 removed) identified using stem-and-leaf graphs.

Looking at Table II-9 below, the correlation between the ECERS-R score and the percentage of students in those classes who developed less socio-emotional risk factors was again not significant this year (n=100, r=0.147, p>.05). Last year, the correlation between the ECERS-R score and the percentage of students who developed less socio-emotional risk factors was also not significant (n=99, r=0.125, p>.05).

However, this year, again looking at Table II-9, it is of some interest that we have detected a small correlation between lower ECERS-R scores and the percentage of students who developed more risks (n=100, r=-0.225, p<.05). We did not see this result last year (n=99, r=-0.038, p>.05).

Table II-9				
2005-06 RECAP Annual Report				
Correlation of ECERS-R With the Percentage of Students Who Are Socio-Emotionally At Risk by Classroom				
	2004-05		**2005-06**	
Correlating classroom ECERS-R score with:	**n**	**r****	**n**	**r****
%Students who developed less risks	99	0.13	100	0.15
%Students who developed more risks	99	-0.04	100	-0.23*
%Student who were at risk and had no change	99	-0.09	100	-0.06
%Student who were not at risk and had no change	99	0.05	100	0.13
Notes: * Signifies significant at p<.05 ** r - Denotes Pearson Correlation Coefficient				

Is there a relationship between high and very high quality environments and improvement of students who are at risk socio-emotionally?

To answer this question we followed two steps:

a) Aggregate the data by classroom and using the median split the classrooms into two groups: 1.) High quality and 2.) Very high quality.
b) Determine if the very high quality group had a higher percentage of students who improved or a smaller percentage of students who deteriorated than the high quality group.

Aggregating by Classroom

To determine if high quality, as measured by very high ECERS-R scores, had a measurable impact in increasing the number of positive outcomes or decreasing the number of no change or negative outcomes, we aggregated the data set by classroom and selected those classrooms that had 10 or more students with complete data.

After aggregation, data were first inspected to identify outliers. Classrooms with ECERS-R scores below 3.9 were identified as outliers using stem and leaf plots and removed from the analyses (n=2). The median ECERS-R score of the remaining classrooms was 6.25, indicating the very high quality of classrooms environments that characterizes the provision of early childhood services in the City of Rochester.

Results

A one-way multivariate analysis of covariance (MANCOVA) was conducted to determine the effect of high quality versus very high quality on the socio-emotional change variable while controlling for the proportion of different ethnicities and male students in each class. There were no significant differences in the outcomes by quality group (Wilks' Lambda = 0.925, $F(3,92)=2.495$, $p>.05$). Last year there was also no significant differences in the outcomes by quality group (Wilks' Lambda = 0.961, $F(3,91)=1.236$, $p>.05$).

What do these results mean?

This year, just like last year, we did not detect any significant correlation between ECERS-R scores and the improvement of students who are at risk socio-emotionally. However, this year we did detect a small correlation between lower ECERS-R classroom scores and the percentage of students in those classrooms who developed more risks.

Also, based on MANCOVA analysis, the data showed that there was no significant association between ECERS-R quality and the reduction of socio-emotional risk factors.

Combining T-CRS Risks, COR Scores, and Demographics

An analysis was conducted again this year to examine the gender and race/ethnicity interactions in relation to COR performance and the number of the student's risk factors. For this analysis, regression was used. The dependent variable was the total COR scores. The categorical risk variable was an ordinal type risk variable that was the count of T-CRS risks identified (on a continuous scale of 0 risks to 4 risks). The independent variables used in the regression were: gender, White, Black, and Hispanic race/ethnicity. Another "Other" race/ethnicity classification was not used in this analysis, as it was small in number, and it is a non-homogeneous subgroup. The sample used was all 2005-06 RECAP children who had time 1 total COR scores and who fit into one of three race/ethnicity groups.

Last year's and this year's results from the regression analysis are displayed in graphical form in Figures II-13 through II-16 below. Data points shown in these figures are not actual data, but estimated values based on linear regression lines which were computed from the actual data. Although the lines are "smoothed," the results represent real phenomena.

The abbreviations used in Figures II-13 through II-16 include: for WF = White-female, WM = White-male, BF = Black-female, BM = Black-male, HF = Hispanic-female and HM = Hispanic-male.

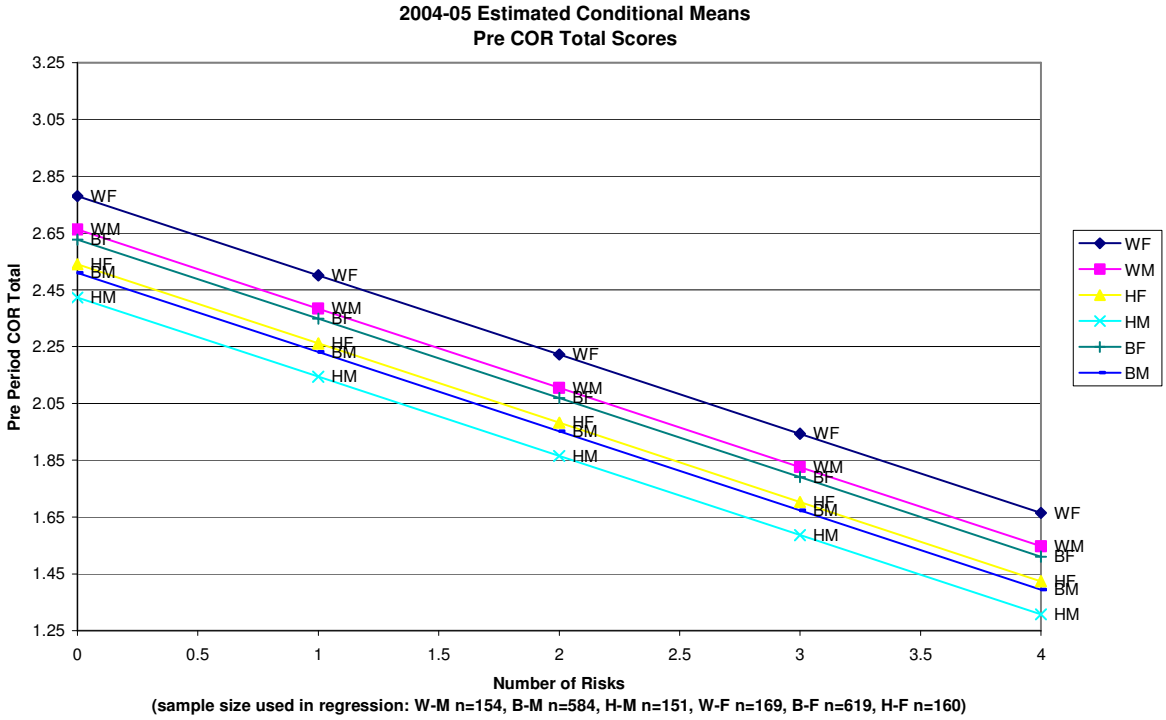
The following summarizes some of the findings from this analysis:

- Differences are influenced by both gender and race/ethnicity. Looking at Figure II-14 below, showing time 1 total COR scores for 2005-06, we once again found that the best performing group was the white female group. This year, all female subgroups were higher in performance at time 1 than the males of the same race/ethnicity. The White male subgroup was clearly the second highest performing subgroup this year. We saw this particular group starting to separate from the other groups in last years results which can be seen in Figure II-13 below. The largest difference this year in COR performance was between the White females and the Black males. This difference was about 0.5 in the mean COR score; or in terms of effect size equal to 0.6 (the standard deviation of COR scores is about 0.8).

- In general, as the number of T-CRS risks goes up, the COR cognitive scores go down. The COR cognitive scores generally decreases in relation to the number of T-CRS risks for race/ethnicity and gender combinations.

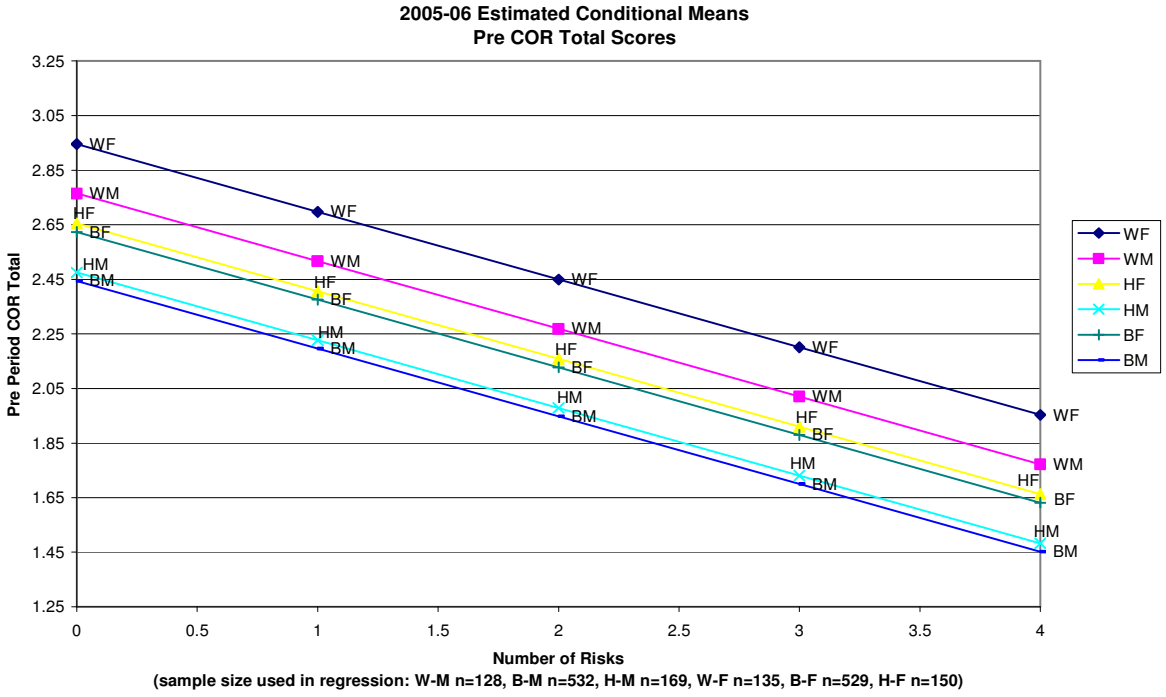
- Figure II-16 shows similar results for 2005-06 as in Figure II-14, but for COR scores in the post period. At time 2 this year, all of the female-Race/Ethnicity subgroups outperformed all of the male-Race/Ethnicity subgroups. Figure II-15 displays 2004-05 for comparison purposes.

Figure II-13 2004-05 estimated conditional means time 1 COR scores



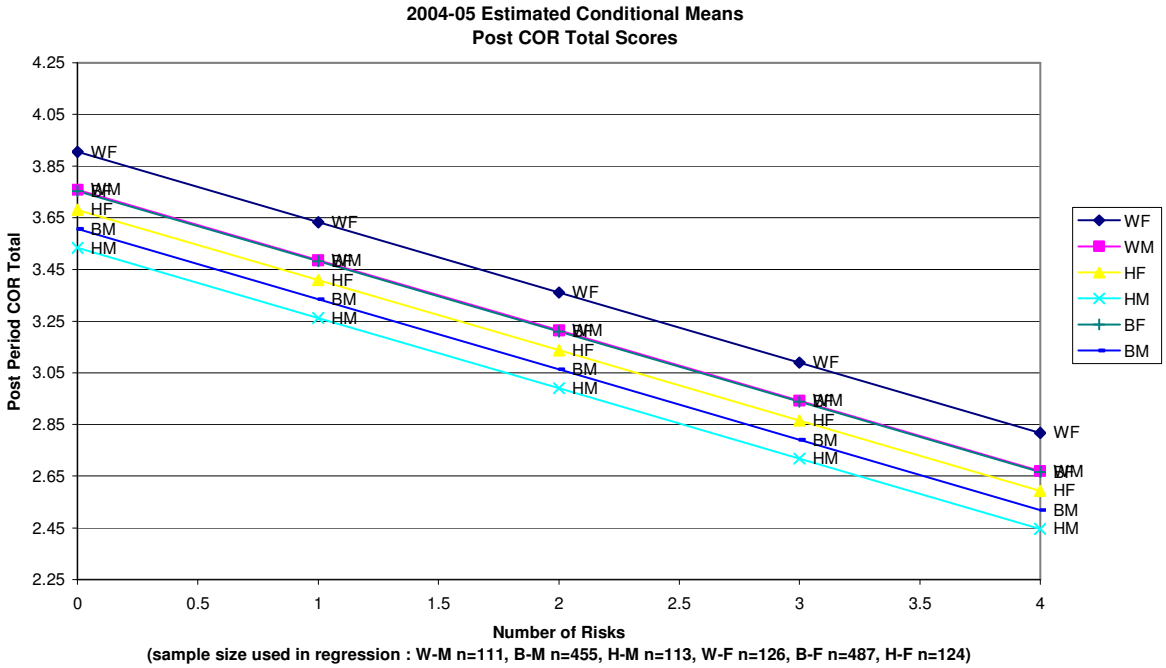
(sample size used in regression: W-M n=154, B-M n=584, H-M n=151, W-F n=169, B-F n=619, H-F n=160)

Figure II-14 2005-06 estimated conditional means time 1 COR scores



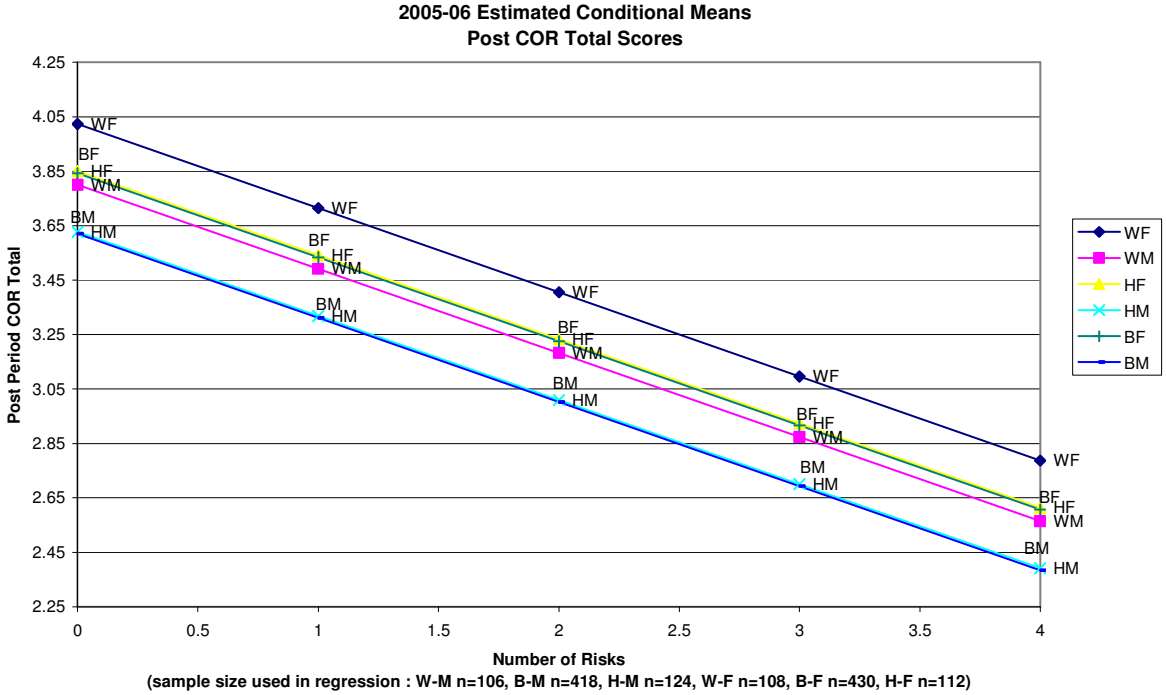
(sample size used in regression: W-M n=128, B-M n=532, H-M n=169, W-F n=135, B-F n=529, H-F n=150)

Figure II-15 2004-05 estimated conditional means time 2 COR scores



(sample size used in regression : W-M n=111, B-M n=455, H-M n=113, W-F n=126, B-F n=487, H-F n=124)

Figure II-16 2005-06 estimated conditional means time 2 COR scores



(sample size used in regression : W-M n=106, B-M n=418, H-M n=124, W-F n=108, B-F n=430, H-F n=112)

What do these results mean?

Students who arrive in the fall with multiple socio-emotional risk factors are likely to also arrive with lower levels of social, academic and motor skills. For the past 3 years, we have seen that students with a single risk factor at time 1 are generally rated lower than students with no risk factors with one exception: if the risk is behavior control. Students with behavior control issues, but no other risk factors, were usually rated similarly to students with no risk factors in the academic, motor, and social areas. However, this year for the first time in 3 years, motor skills were slightly different for students with a behavioral control risk and student with no risks. These analyses are based on correlation, so causation cannot be established.

Males and students of Black and Hispanic race/ethnicity have additional risk, which supports previous studies and research.

III. Parent Perspectives

Early Childhood Parent Survey (ECPS) – Parental Satisfaction

The Early Childhood Parent Survey (ECPS) measures parent satisfaction in seven areas of early childhood programs:

- Parent needs, communication, and involvement
- Students needs and involvement
- Learning environment
- Teachers
- Administration
- Building, room, and equipment

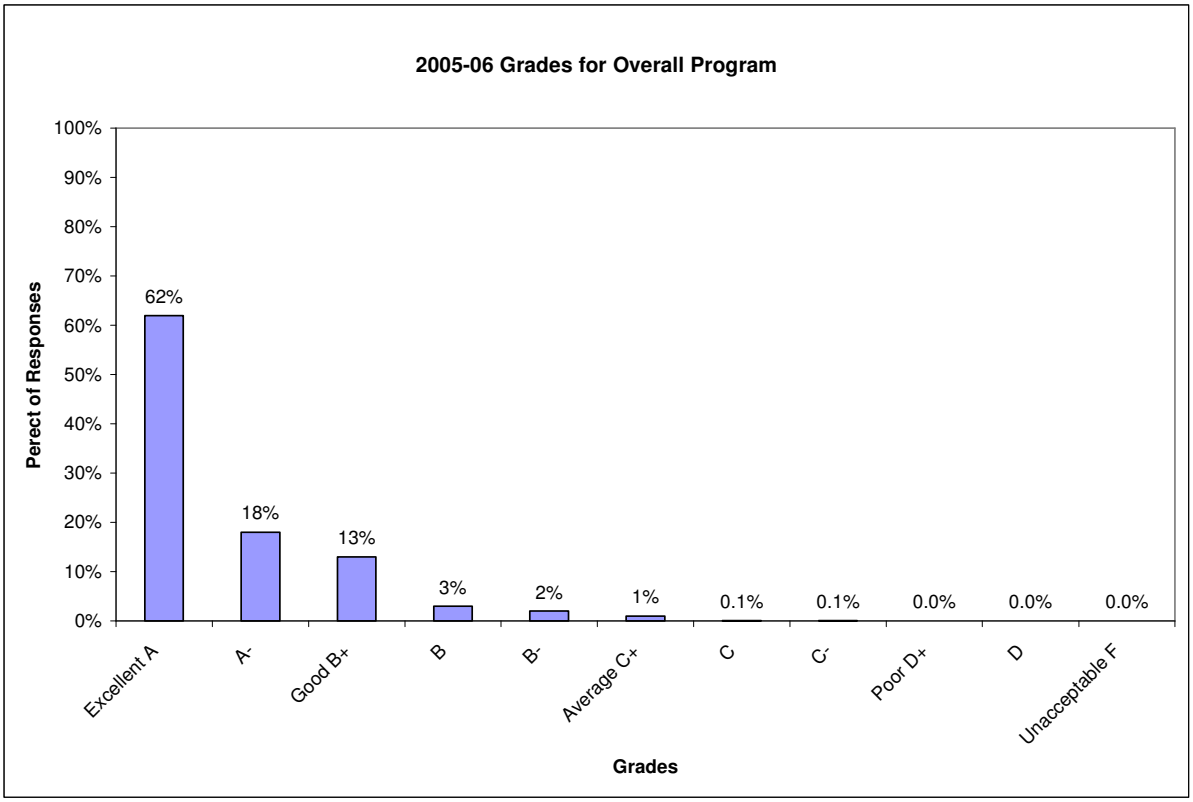
How are these areas measured?

To measure each area, parents were provided a list of 8 to 14 activities, routines or physical structures that they observed or experienced in the classroom or when dealing with the teachers and administrators. The responses are either “Yes" or “No” that the item was observed or not observed, respectively. At the end of each area, parents are also asked to assign an overall satisfaction grade (A – F) for that area.

Overall, were parents satisfied with the prekindergarten education services that their students received?

Yes. Parents indicated that they were highly satisfied with the early education services their child had received. Figure III-1 below shows the grades for all programs combined.

Figure III-1 parent satisfaction for all programs combined.

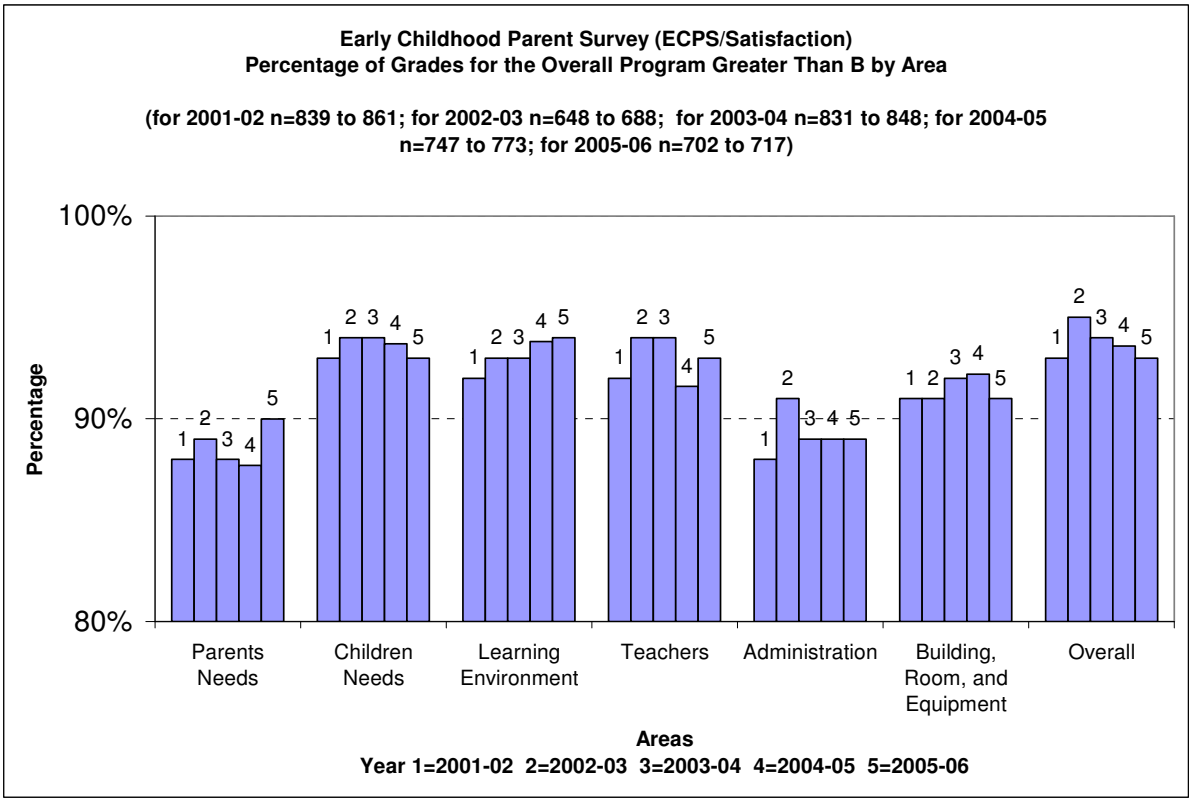


	Grades for Overall Program Last 5 Years										
	Excellent A	A-	Good B+	B	B-	Average C+	C	C-	Poor D+	D	Unacceptable F
2001-02	59%	20%	14%	4%	1%	1%	0.8%	0.2%	0.1%	0.0%	0.1%
2002-03	61%	19%	15%	3%	1%	1%	0.3%	0.1%	0.1%	0.0%	0.1%
2003-04	64%	18%	11%	4%	1%	1%	0.8%	0.4%	0.1%	0.0%	0.0%
2004-05	67%	16%	11%	4%	1%	1%	0.5%	0.0%	0.0%	0.0%	0.0%
2005-06	62%	18%	13%	3%	2%	1%	0.1%	0.1%	0.0%	0.0%	0.0%

When comparing results across recent years are there any noticeable trends?

The satisfaction results for this year parallel those of previous years. Overall, parents remain very satisfied with their children's prekindergarten programs. This year 93% rated the programs above a "B" (good). This percentage was 94% last year. The percentage of ratings that were an "A" grade did decrease to 62% from 67% last year. However, three years ago this percentage was 61%.

Figure III-2 parent satisfaction by area.

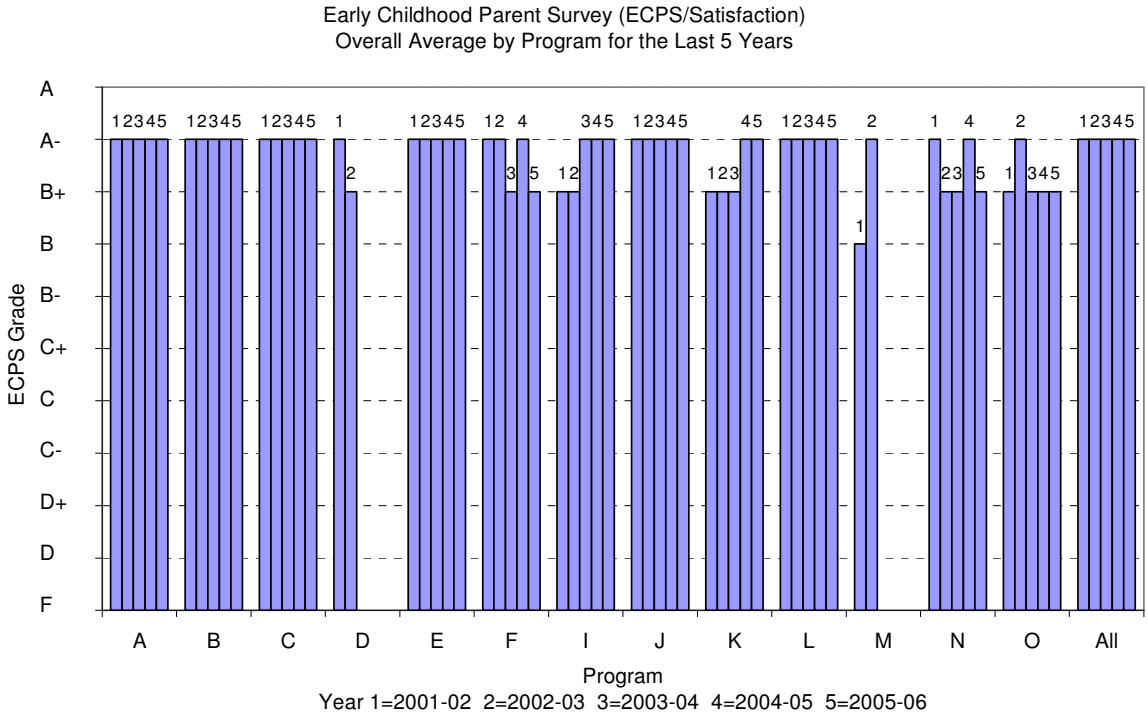


Early Childhood Parent Survey (ECPS/Satisfaction)								
		Percentage of Grades for the Overall Program Greater Than B by Area						
School Year	Year	Parents Needs	Children Needs	Learning Environment	Teachers	Administration	Building, Room, and Equipment	Overall
2001-02	1	88%	93%	92%	92%	88%	91%	93%
2002-03	2	89%	94%	93%	94%	91%	91%	95%
2003-04	3	88%	94%	93%	94%	89%	92%	94%
2004-05	4	88%	94%	94%	92%	89%	92%	94%
2005-06	5	90%	93%	94%	93%	89%	91%	93%

Was there variation in parent satisfaction by program?

Yes. There is some variation across programs; yet as can be seen in Figure III-3 below, all programs scored a B or above, for each of the last five years.

Figure III-3 parent satisfaction levels by program for last 5 years.



Overall Average by Program for the Last 5 Years															
		Program													
School Year	Year	A	B	C	D	E	F	I	J	K	L	M	N	O	All
2001-02	1	A-	A-	A-	A-	A-	A-	B+	A-	B+	A-	B	A-	B+	A-
2002-03	2	A-	A-	A-	B+	A-	A-	B+	A-	B+	A-	A-	B+	A-	A-
2003-04	3	A-	A-	A-	.	A-	B+	A-	A-	B+	A-	.	B+	B+	A-
2004-05	4	A-	A-	A-	.	A-	A-	A-	A-	A-	A-	.	A-	B+	A-
2005-06	5	A-	A-	A-	.	A-	B+	A-	A-	A-	A-	.	B+	B+	A-

For a more complete examination of the satisfaction data please consult Appendix B and D in the RECAP 2005-06 Annual Report Statistical Supplement.

Appendix B in the supplement contains tables and graphs describing satisfaction rates for each item and program. Overall, parents are highly satisfied with the formal early childhood programs their children attend.

Preschool Parent Support Questionnaire (PPSQ - New Analysis)

Purpose

The purpose of this section of the report is to highlight some recent observations that have been made from use of the Preschool Parent Support Questionnaire (PPSQ). We have been collecting and using data from this measure for the past 9 years in RECAP.

The PPSQ is used to survey parents in the fall and spring of the school year. The questionnaire asks the parent how strong their social support is from each of four support domains: family members, friends/neighbors, preschool staff, and others (church, work, etc.). For each of 5 parenting issues, the respondent is asked to rank the level of support that they receive from each domain, on a range from 1 (never) to 10 (always).

Overview of Results

An analysis was completed this year on recent PPSQ results. We found that while family members continue to be the greatest means of support for parents, significantly large fall to spring increases were seen in the parents' reliance on their children's pre-k program staff.

Results

Tables III-1 and III-2 below show the pre and post results for last year and this year respectively for all programs combined. The largest change from time 1 to time 2 in these tables was in the daycare staff support domain in 2004-05 and in the other (church, work, etc.) domain in 2005-06.

Table III-1 2004-05 SSQ results all programs combined.

2005-06 RECAP Annual Report								
2004-05 Preschool Parent Support Questionaire Results								
	Time 1			Time 2				
Support Domain	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N*	Change**
Family	1364	42.8	9.4	870	44.1	8.9	590	1.7
Friends	1337	38.3	11.0	848	40.1	10.5	568	2.0
Daycare	1313	35.5	11.4	850	39.1	11.1	562	3.5
Others	1319	33.8	13.9	847	36.6	13.6	556	3.2
Notes: * Denotes that changes in scores are based on matching pre and post scores.								
** Denotes that all changes were significant using t-tests Pr(t)<.0001								

Table III-2 2005-06 SSQ results all programs combined.

2005-06 RECAP Annual Report								
2005-06 Preschool Parent Support Questionaire Results								
	Time 1			Time 2				
Support Domain	**N**	**Mean**	**Std. Dev.**	**N**	**Mean**	**Std. Dev.**	**N***	**Change**
Family	1218	42.8	9.8	856	43.4	9.0	590	0.5
Friends	1196	38.6	11.3	837	39.3	10.9	568	0.9
Daycare	1186	36.4	11.2	841	38.8	10.7	562	2.0**
Others	1183	34.7	13.7	832	37.2	12.7	556	2.5**
Notes: * Denotes that changes in scores are based on matching pre and post scores.								
** Denotes that change was significant using t-tests Pr(t)<.0001								

Figures III-4 and III-5 below contain the same data as in Table III-1 and III-2 above, but displays results in graphical form. In these charts we can see that the family domain was the most important means of social support to parents, both in the fall and in the spring, for both years. The parents' second most important domain was consistently the friends category.

Figure III-4 changes in the 2004-05 PPSQ results from fall to spring by support domain.

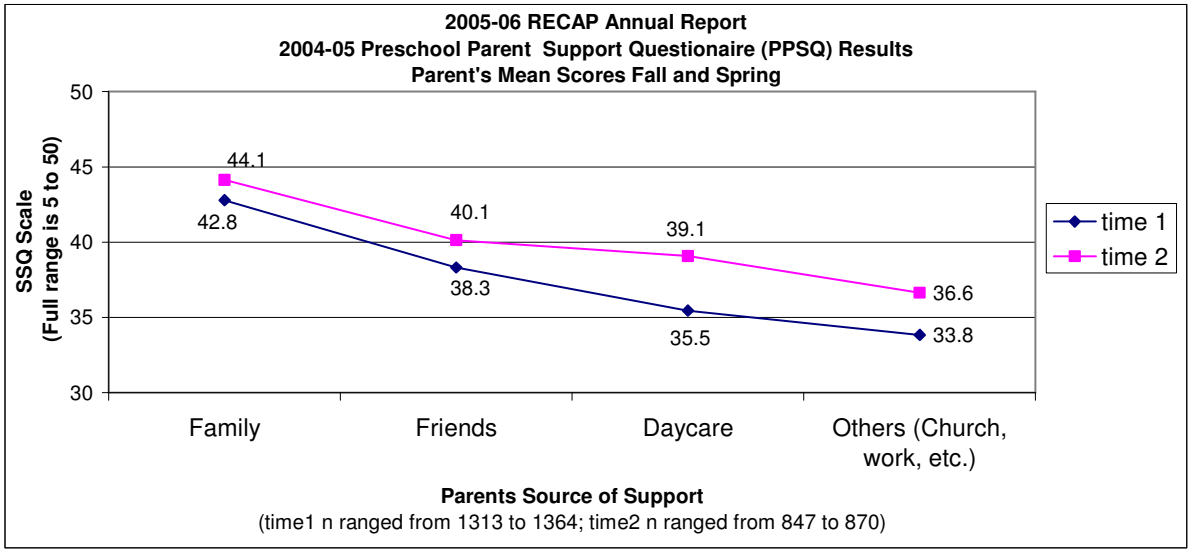
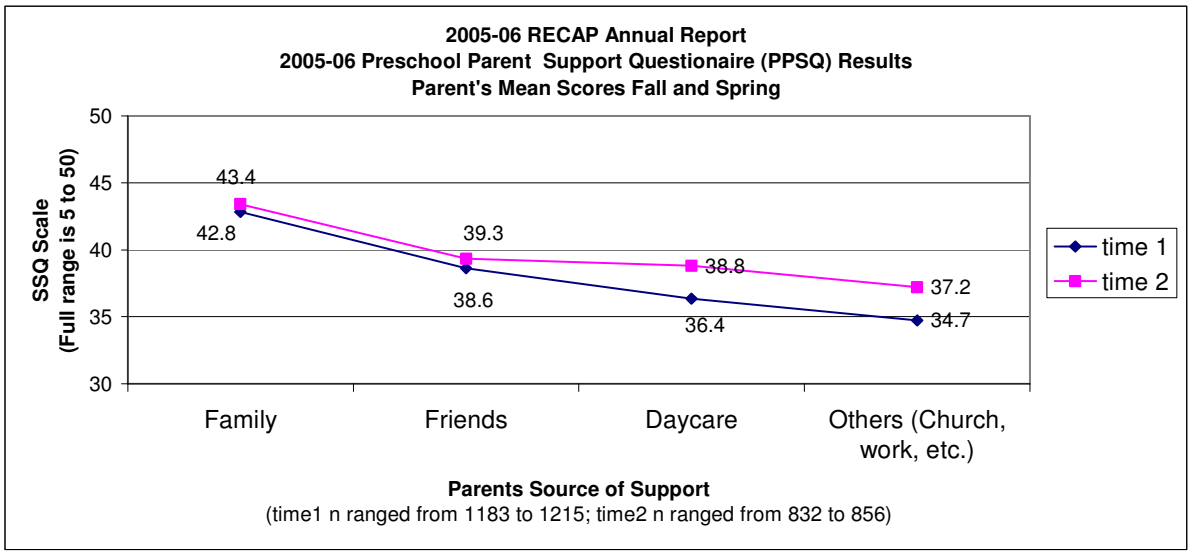


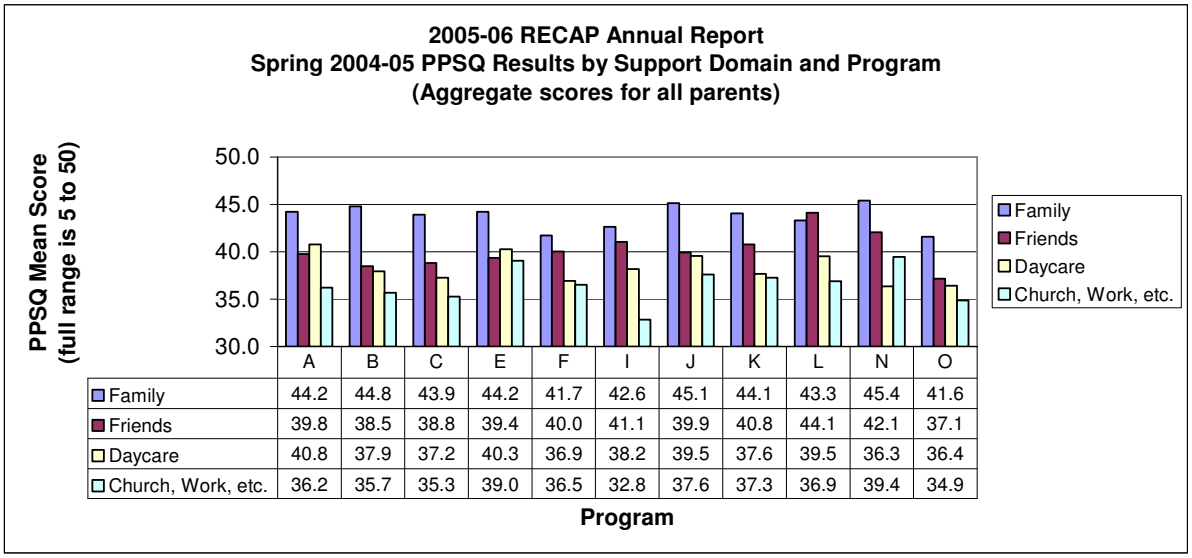
Figure III-4 changes in the 2005-06 PPSQ results from fall to spring by support domain.



Spring PPSQ Results by Program

Figures III-5 and III-6 below show the spring PPSQ results by program, for 2004-05 and 2005-06 respectively. When comparing survey results in the spring to results in the fall, by program, every almost every program showed an increase in the parents' reliance on the daycare domain and in both years. Only program B in 2005-06 did not show an increase in parents' reliance on the daycare domain.

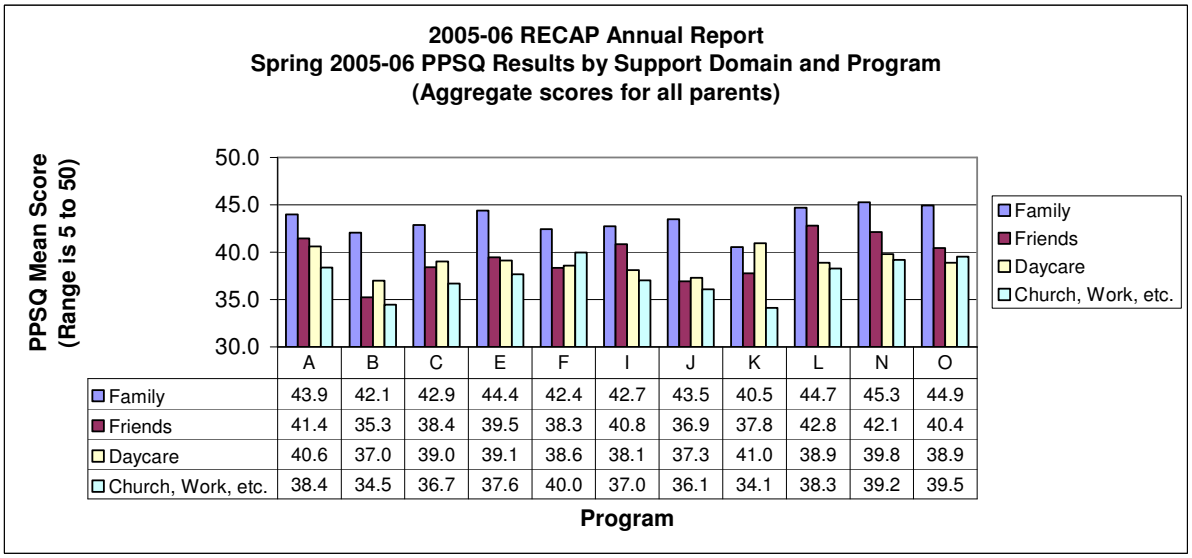
Figure III-5 spring 2004-05 SSQ results by support domain and by program.



	A	B	C	E	F	I	J	K	L	N	O
Family	44.2	44.8	43.9	44.2	41.7	42.6	45.1	44.1	43.3	45.4	41.6
Friends	39.8	38.5	38.8	39.4	40.0	41.1	39.9	40.8	44.1	42.1	37.1
Daycare	40.8	37.9	37.2	40.3	36.9	38.2	39.5	37.6	39.5	36.3	36.4
Church, Work, etc.	36.2	35.7	35.3	39.0	36.5	32.8	37.6	37.3	36.9	39.4	34.9

Spring 2004-05 - Range of Sample Size by Program											
	Programs										
N	**A**	**B**	**C**	**E**	**F**	**I**	**J**	**K**	**L**	**N**	**O**
Min.	206	41	96	78	45	66	181	14	57	51	7
Max.	212	42	97	79	49	68	188	15	58	52	7

Figure III-6 spring 2005-06 SSQ results by support domain and by program.



	A	B	C	E	F	I	J	K	L	N	O
Family	43.9	42.1	42.9	44.4	42.4	42.7	43.5	40.5	44.7	45.3	44.9
Friends	41.4	35.3	38.4	39.5	38.3	40.8	36.9	37.8	42.8	42.1	40.4
Daycare	40.6	37.0	39.0	39.1	38.6	38.1	37.3	41.0	38.9	39.8	38.9
Church, Work, etc.	38.4	34.5	36.7	37.6	40.0	37.0	36.1	34.1	38.3	39.2	39.5

Spring 2005-06 - Range of Sample Size by Program											
	Programs										
N	**A**	**B**	**C**	**E**	**F**	**I**	**J**	**K**	**L**	**N**	**O**
Min.	181	36	109	52	38	99	195	28	47	14	28
Max.	189	37	111	56	38	99	203	29	48	15	28

Figures II-7 through III-10 in Appendix III of the **RECAP 2005-06 Annual Report Statistical Supplement** show the fall results and the fall-to-spring changes in the PPSQ results by program, for both 2004-05 and 2005-06 cohorts.

Looking at the changes in Figures III-9 and III-10 in the supplement, we can see that in both 2004-05 and 2005-06, 8 out of 11 programs showed a positive change in parents support from the daycare domain. It can also be seen from these charts that there is a lot of variability between programs in both years.

Also shown in Appendix III is Table III-3 which contains the result of a factor analysis that was performed on the fall 2004-05 data. This analysis found that, as expected, there were 4 constructs underlying the data: family, friends, day care staff, and others (church, work, etc.).

IV. Family Childcare

We continued to include family childcare providers in RECAP for a second year. In addition to the benefits it brings providers, assessment of family childcare is motivated by community investment and the enthusiastic interest of our partners. This past year, 22 family childcare providers participated in RECAP, which is a decrease in participation from 54 last year. This decrease is for a variety of reasons including the fact that nine providers closed their programs. Efforts are underway to increase the number of participating providers in 2006-07.

Collaboration with Rochester Childfirst Network Family Child Care Satellites of Greater Rochester (FCCSGR) enables RECAP to welcome family childcare providers into our partnership in a meaningful way. We are grateful to FCCSGR's uniquely qualified professionals, resources and programs that have facilitated our partnership with family childcare providers.

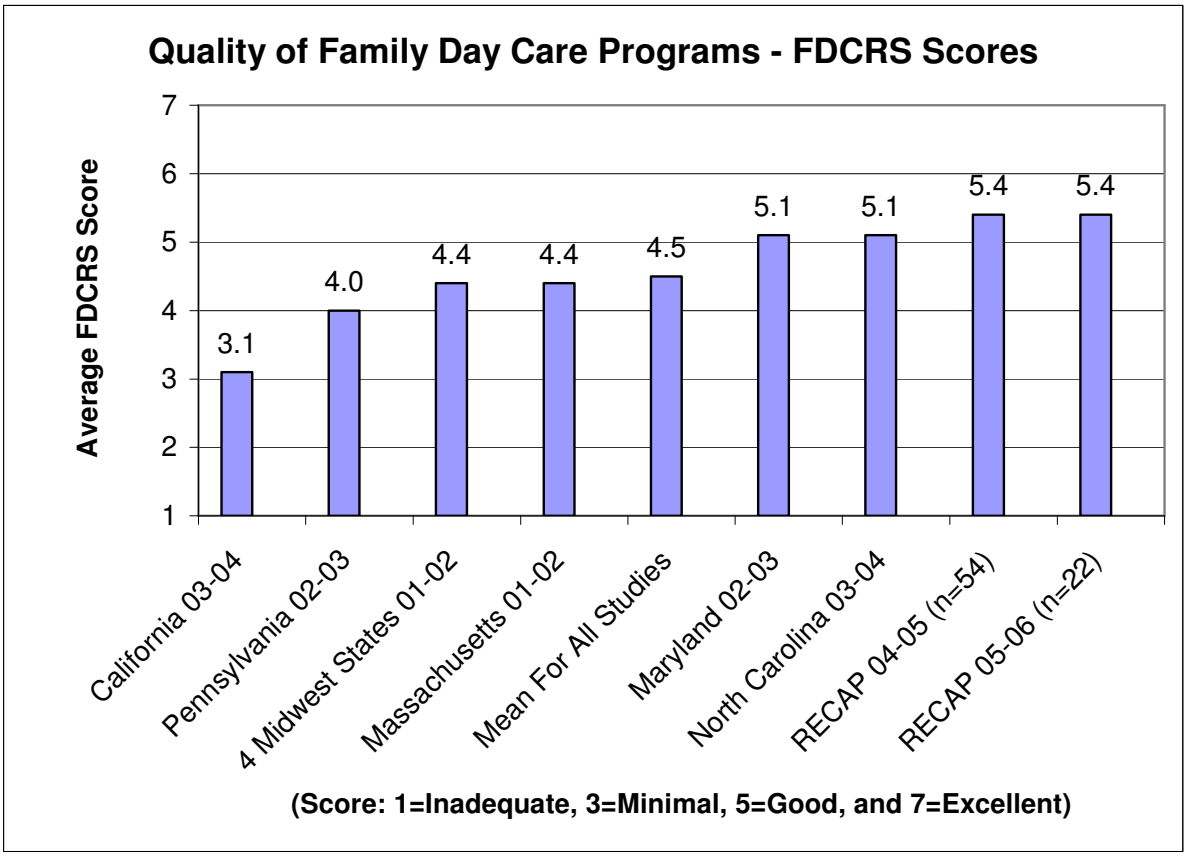
The model we have developed for family childcare assessment contains one main component: program quality assessment using the Family Day Care Rating Scale (FDCRS) (Harms & Clifford, 1989).

Working together with FCCSGR trainers, providers used the results of the formal observation to affirm what components of the program are working well and to assure continuing quality practices. They also determined which areas are most in need of support and improvement. Using the observation feedback, providers identified program components that can be improved with the purchase of equipment/materials. Financial support for these purchases was provided by the FCCSGR.

We are pleased to include the FCCSGR and its affiliated family childcare providers in RECAP. This is an exciting opportunity for the diversification of our assessment system and for Rochester's early education community.

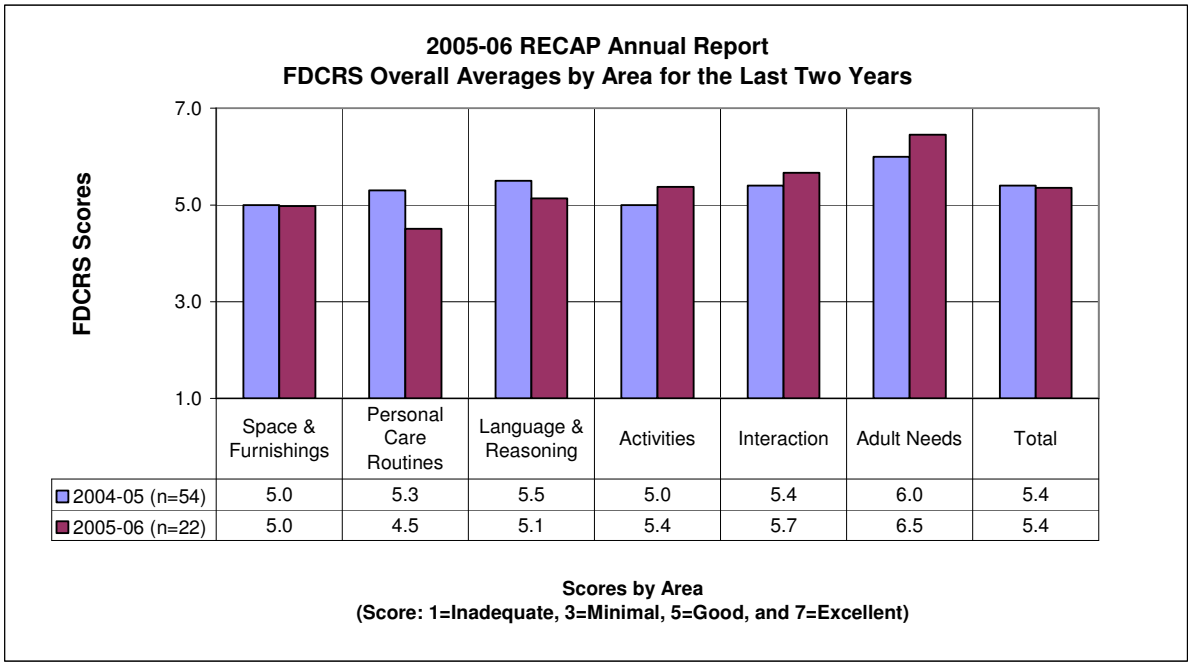
Results of FDCRS Observations

Figure IV-1 Quality of family day care programs



Note: The "4 Midwest States" are Iowa, Kansas, Missouri, and Nebraska

Figure IV-2 FDCRS area scores are shown for the last 2 years.



What is the reliability of the FDCRS?

Eight programs were observed by two observers so that the level of agreement between different observers could be assessed.

Table IV-1 below shows the results of the reliability calculations for the last 2 years of FDCRS observations. The internal reliability (Cronbach's Alpha) of the FDCRS this year was 0.89. The inter-rater reliability was r = 0.95 (n=8 dual observations). Using (a/a+d; a=agreement and d=disagreement) the median inter-rater reliability was 0.84 for exact matches and 0.94 for differences of one point.

Table IV-1 reliability of the 2005-06 FDCRS.

Table IV-1		
2005-06 RECAP Annual Report		
FDCRS Reliability for the Last 2 Years		
	School-Year	
	2004-05	**2005-06**
Internal Reliability		
Sample Size	54	22
Cronbach's Alpha Value	0.94	0.89
Inter-Rater Reliability		
Sample size	11	8
Median Inter-Rater Reliability for Exact Matches	0.63	0.84
Median Inter-Rater Reliability for Differences of One Point Matches	0.77	0.94
Total FDCRS Inter-Rater Reliability (r)	0.83	0.95
Space & Furnishings (r)	0.27*	0.87
Personal Care Routines (r)	0.80	0.99
Language & Reasoning (r)	0.87	0.88
Activities (r)	0.97	0.96
Interaction (r)	0.51*	0.94
Adult Needs (r)	0.76	0.95
Notes: * All inter-rater reliability values were significant at Pr(t)<=.01 except for the Space & Furnishings and Interaction areas in 2004-05. (r) Denotes Pearson Correlation Coefficient shown.		

It is important to note that there is a significant increase in the rate of inter-rater reliability among the FDCRS Master Observers in 2005-06. This is in part due to the improved quality of the training program implementation and Master Observers' improvement in observation skills and adherence to scoring protocol.

V. Follow-up Studies

Follow-up Analysis of RECAP Students

Purpose of Analysis

To compare the 2005-06 kindergarten performance of students who participated in the 2004-05 RECAP prekindergarten programs with those students who did not participate in the RECAP programs. The comparison was in terms of 2005-06 RCSD kindergarten COR scores. This is the 3rd year in a row that we have conducted this analysis.

Summary of Results

The findings from this analysis are that for the overall 2004-05 RECAP student population, the RECAP students had significant, slightly higher 2005-06 fall kindergarten COR scores than non-RECAP students. Moreover, in the spring of 2005-06 this positive effect continued to be present. The COR growth rates between the RECAP and non-RECAP kindergarteners were found to be the same. *This means that the RECAP students started slightly higher and also ended slightly higher in the spring.*

Gender and race/ethnicity were once again found to be significantly tied to performance on the COR, but not clearly significant when comparing students with RECAP program experience and those without this experience.

Sample

All students with 2005-06 RCSD Fall kindergarten COR scores were included in the sample. To determine whether these students had attended RECAP centers the 2004-05 RECAP information was used.

Attrition of Subjects

Attrition occurs when there is initial data for a subject, but no follow up data. Reasons for attrition in this particular study might include RECAP students attending non-RCSD kindergarten classes or students being held out of kindergarten for an additional year.

The RCSD ID numbers either did not exist or were not known for 26% of the RECAP students. Overall, we had an attrition rate of 54% for the 2004-05 RECAP students. This means that, at most, our follow-up study this year could only track 46% of the 2004-05 RECAP students.

Table V-1 shows the attrition rates for the last three years (for comparison purposes) in tracking our RECAP students in kindergarten. The attrition rates are the percentage of RECAP students that we cannot account for when conducting this type of follow-up analysis.

Table V-1 Attrition rates for RECAP follow-up subjects.

Table V-1			
Attrition for the Last Three Years in RECAP Follow-up Subjects			
	RECAP Cohort		
	2002-03	**2003-04**	**2004-05**
Total RECAP students	2,649	2,887	2,790
RECAP students not identified in kindergarten the following year.	1,386	1,658	1,515
Attrition Rate	52.3%	57.4%	54.3%

General Analyses

The following analyses were performed using both Multivariate Analysis of Variance (MANOVA) and Analysis of Variance (ANOVA) to see if there were differences in kindergarten COR scores between the group of students who had RECAP experience in 2004-05 and the group that was not in RECAP.

The main purpose of this report is to identify effects that are RECAP based. While other effects such as gender, race/ethnicity were examined and reported on to some degree, it is the RECAP variable, or possibly an interaction using this variable, that is the main focus here.

We are currently transitioning from the 21-item version to the latest 32-item version of the COR. In 2005-06 all kindergarten teachers used the previous 21-item version except for new teachers. The new teachers were trained in and used the new 32-item version. There were 33 new kindergarten teachers with a total of 488 fall and 511 spring 32-item COR observations. We ran all of the following analyses using both 21-item COR alone and also with a combined dataset including both versions. **The results were very similar, so in order to maintain year to-year-consistency, we report in this document the results for the 21-item COR only.** Additional results from analyses comparing data with and without the new 32-item COR can be found in Appendix V of this year's **RECAP 2005-06 Annual Report Statistical Supplement**.

Fall Kindergarten COR Subscales

The first MANOVA conducted used the fall 2005-06 kindergarten COR academic, motor, and social subscales as the dependent variables. The independent variables used were RECAP experience, gender and race/ethnicity. The .05 level was used to establish significance for all tests in this analysis. Race/ethnicity was defined as White, Black, or

Hispanic. The "Other" race/ethnicity classification was not used, as it was small in number, and it is a non-homogeneous group.

The result from the fall MANOVA showed that overall differences in kindergarten COR scores were due, in part, to a main effect of RECAP experience. This effect was found to be significant overall (Wilks' lambda = 0.989, $F(3,1996) = 7.17$, $p<.05$). In addition, in univariate tests, all 3 COR subscales proved to be significant (motor $F(1,1998)=5.67$, $p<.05$; social $F(1, 1998)=10.84$, $p<.05$; and academic $F(1, 1998)=19.15$, $p<.05$) .

Gender & race/ethnicity: In addition to the main effect for the RECAP indicator, gender and race/ethnicity were also found to have significant effects. As in last year's follow-up analysis, gender was found to have a significant effect upon fall COR scores (Wilks' lambda = 0.974, $F(3,1996) = 17.70$, $p<.05$, means for all 3 subscales G>B), and girls had higher fall COR scores than boys in all 3 subscales. Also, much like last year, race/ethnicity was found to have a significant effect on fall COR scores (Wilks' lambda = 0.984, $F(6,3992) = 5.43$, $p<.05$; for means: social W>B, H; academic W>B,H; motor W=B=H). White students were found to have had significantly higher scores than Black and Hispanic students in social and academic skills, but there was no difference in motor skills.

Interactions:
RECAP * gender was not significant (Wilks' lambda = 1.000, $F(3,1989) = 0.15$, $p>.05$).
RECAP * race/ethnicity was significant (Wilks' lambda = 0.993, $F(6,3978) = 2.36$, $p<.05$).
RECAP * gender * race/ethnicity was not significant (Wilks' lambda = 0.997, $F(6,3978) = 1.00$, $p>.05$).

Please refer to Appendix V in this year's statistical supplement for more detailed information on significant interaction effects.

Fall Kindergarten Total COR

For the purpose of brevity throughout this report, kindergarten COR totals and not the subscales are graphically displayed if the total and subscale MANOVA results are consistent with each other. To better focus on the fall kindergarten COR total as a dependent variable, an Analysis of Variance (ANOVA) was conducted using kindergarten COR total as the dependent variable.

The results of this ANOVA were consistent with the kindergarten fall COR MANOVA described earlier. That is, the main effect of RECAP experience was significant ($F(1,1998)=14.45$, $p<.05$).

Gender & race/ethnicity: The ANOVA results showed that gender ($F(1, 1998)=42.12$, $p<.05$; for means: G>B) and race/ethnicity ($F(2, 1998) = 6.51$, $p<.05$, for means: W>B)

were also found to be significant. Girls had higher Fall COR scores than boys. White students had higher scores than Black students, but not higher than Hispanic students.

Interactions:
RECAP * gender was not significant ($F(2, 1991)=0.35$, $p>.05$).
RECAP * race/ethnicity was significant ($F(2, 1991)=3.16$, $p<.05$).
RECAP * gender * race/ethnicity was not significant ($F(2, 1991)=0.23$, $p>.05$).

Please refer to Appendix V in this year's statistical supplement for more detailed information on significant interaction effects.

Spring Kindergarten COR Subscales

We next examined the effects of RECAP on spring kindergarten COR results. The MANOVA described earlier for the fall kindergarten COR scores was repeated using the spring 2005-06 kindergarten academic, motor, and social COR subscales as the dependent variables.

The result from the spring MANOVA showed that differences in the kindergarten COR overall was due, in part, to a main effect of RECAP experience. This effect was found to be statistically significant (Wilks' lambda = 0.989, $F(3,1907) = 6.76$, $p<.05$). This result means that the "jump start" that RECAP students had in the fall of their kindergarten year was maintained and they still had an advantage in the spring of 2006. However, upon checking each COR subscale on the univariate level, the RECAP effect in the motor subscale was not significant in the spring ($F(1, 1909)=0.12$, $p>.05$). The social ($F(1, 1909)=5.70$, $p<.05$) and academic subscales were significant ($F(1, 1909)=8.61$, $p<.05$) in univariate tests.

Last year, all 3 subscales in the spring were significant both overall in the MANOVA (Wilks' lambda = 0.981, $F(3,2242) = 14.20$, $p<.05$) and also in the univariate tests (motor $F(1, 2242)=27.68$, $p<.05$; social $F(1, 2242)=31.18$, $p<.05$; academic $F(1, 2242)=41.93$, $p<.05$).

Gender & race/ethnicity: In addition to the main effect for the RECAP, gender and race/ethnicity were also found to be significant in the spring data. Gender was found to have a significant effect upon spring COR scores (Wilks' lambda = 0.960, $F(3,1907) = 26.39$, $p<.05$; means for all 3 subscales G>B). Girls had higher spring COR scores than boys for all 3 subscales.

As in last year's analysis, race/ethnicity was found to have a significant effect on fall COR scores (Wilks' lambda = 0.978, $F(6,3814) = 7.09$, $p<.05$ for means: social W>B, H; academic W>B,H; motor W=B=H). White students were found to have had significantly higher scores than Black and Hispanic students in social and academic skills, but there was no difference in motor skills.

Interactions:
RECAP * gender was not significant (Wilks' lambda = 1.000, F(3,1900) = 0.23, p>.05).
RECAP * race/ethnicity was not significant (Wilks' lambda = 0.999, F(6,3800) = 0.43, p>.05).
RECAP * gender * race/ethnicity was not significant (Wilks' lambda = 0.998, F(6,3800) = 0.95, p>.05).

Spring Kindergarten Total COR

An Analysis of Variance was also performed using the spring COR total. The results of this ANOVA were consistent with the MANOVA. That is, the main effect of RECAP experience was significant (F(1,1910)=5.37, p<.05).

Gender & race/ethnicity: Gender was significant (F(1,1910)=46.46, p<.05; for means: G>B) and the race/ethnicity effect was significant (F(2,1910)=5.88, p<.05; for means: W>B) in the spring. Girls had higher spring COR scores than boys. White students had higher scores than Black students, but not higher than Hispanic students.

Interactions:
RECAP * gender was not significant (F(1, 1903)=0.01, p>.05).
RECAP * race/ethnicity was not significant (F(2, 1903)=0.83, p>.05).
RECAP * gender * race/ethnicity was not significant (F(2, 1903)=1.77, p>.05).

Figure V-1 below shows the differences between RECAP students and non-RECAP students in the fall and spring. Figure V-2 displays the kindergarten scores in the fall and spring by student demographics.

Figure V-1 2005-06 kindergarten COR mean scores at time 1 and time 2.

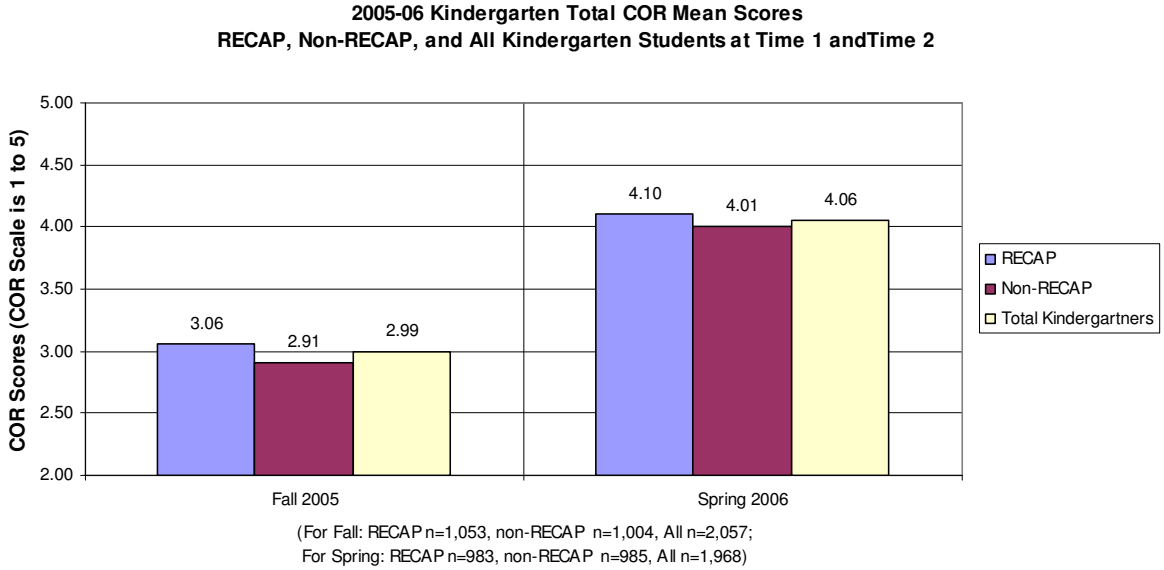
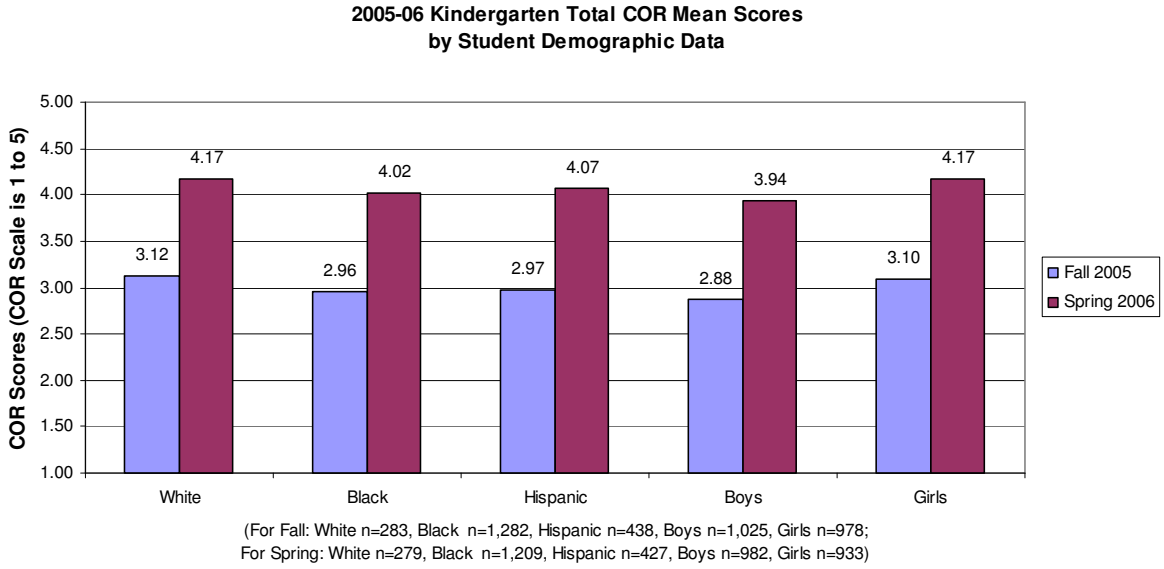


Figure V-2 2005-06 kindergarten total COR mean scores at time 1 and time2 by student demographics.



Growth in Kindergarten COR Subscales

The MANOVAs described above for the fall and spring kindergarten COR scores were repeated using the changes in 2005-06 kindergarten COR subscales as the dependent variables. The kindergarten COR change differences due to the main effect of experience were not found to be significant (Wilks' lambda=0.998, F(3,1796)=1.01, p>.05).

Gender & race/ethnicity:
Differences due to gender (Wilks' lambda=0.999, F(3,1796)=0.55, p>.05) and race/ethnicity (Wilks' lambda=0.996, F(6,3592)=1.20, p>.05) were not significant.

Interactions:
RECAP * gender was not significant (Wilks' lambda = 1.000, F(3,1789) = 0.83, p>.05).
RECAP * race/ethnicity was not significant (Wilks' lambda = 0.997, F(6,3578) = 0.79, p>.05).
RECAP * gender * race/ethnicity was not significant (Wilks' lambda = 0.997, F(6,3578) = 0.88, p>.05).

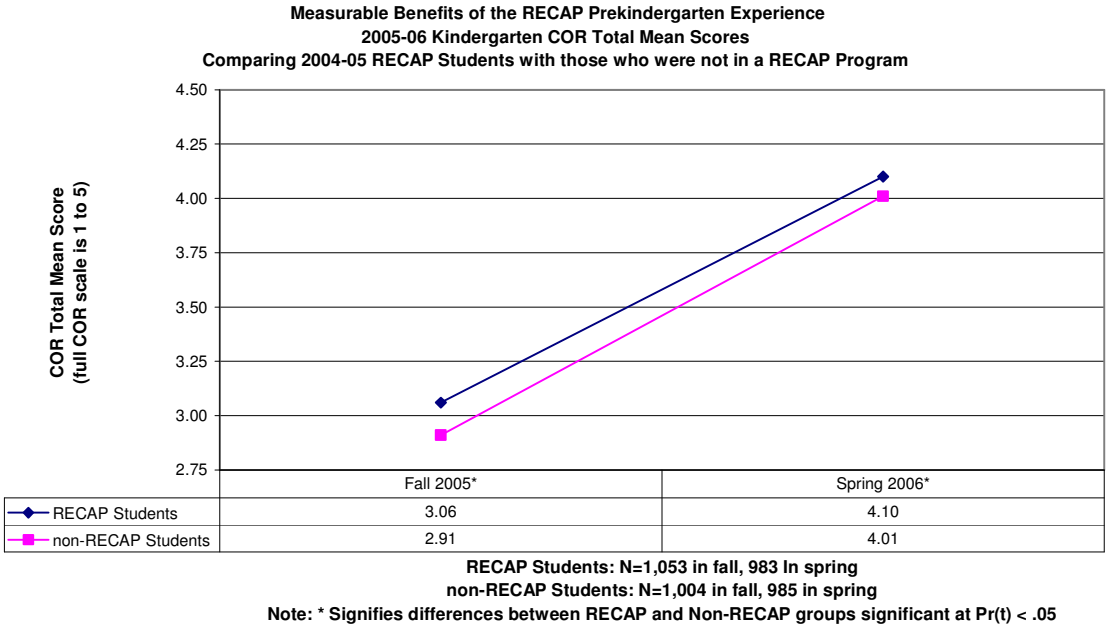
Growth in Kindergarten Total COR

The total COR changes between the RECAP and non-RECAP groups was not significant this year F(1,1799)=1.78, p>.05). The mean total COR change in kindergarten for RECAP students on this analysis was 1.04 and 1.10 for the non-RECAP students. The overall impact of these results suggests that RECAP students start off with slightly higher scores in the fall, and the non-RECAP students are not catching up to the RECAP students by the spring of 2006. This is supported by the analysis on change scores above which found that there is no difference in changes by groups. Figure V-3 below shows these differences in graphical form.

Gender & race/ethnicity:
Gender was not significant (F(1,1792)=0.65, p>.05; and the race/ethnicity effect was not significant (F(2,1792)=1.03, p>.05;

Interactions:
RECAP * gender was not significant (F(1, 1792)=0.07, p>.05).
RECAP * race/ethnicity was not significant (F(2, 1792)=0.50, p>.05).
RECAP * gender * race/ethnicity was not significant (F(2, 1792)=0.20, p>.05).

Figure V-3 benefits of the RECAP classroom experience as measured in the fall and spring of 2005-06.



What do these results mean?

In general, in the fall of 2005-06, the kindergarten students with RECAP classroom experience slightly outperformed students without RECAP classroom experience in their fall COR scores. The students in RECAP classrooms also outperformed students without RECAP classroom experience in their spring COR scores. There was no significant difference in the growth rates between the groups for the RECAP versus non-RECAP group difference. This suggests that children from all groups benefit equally in COR growth.

RECAP Related Interaction Effects

An interaction was detected this year from the fall 2005-06 MANOVA described earlier. A 2-factor RECAP by race/ethnicity interaction at time 1 was found to be mildly significant (Wilks' lambda=0.993, $F(6,3978)=2.36$, $p<.05$). This secondary effect being significant suggests that the RECAP advantage was different by race/ethnicity.

Last year this particular effect at time 1 was not significant (Wilks' lambda=0.999, $F(6,4492)=0.23$, $p>.05$). Because this phenomenon has not been consistent between years, it will not be given much weight unless we see that it repeats next year. This year's result might be simply due to random error or chance.

The RECAP by race/ethnicity interaction was not significant at time 2 (Wilks' lambda=0.999, F(6,3800)=0.43, p>.05) in this year's spring MANOVA or in last year's results (Wilks' lambda=0.998, F(6,4484)=0.93, p>.05).

Two years ago we detected a significant RECAP, gender, and ethnicity 3-way interaction effect. However, this year, based on our time 1 MANOVA results, no 3-factor interactions were found to be significant (Wilks' lambda=0.997, F(6,3978)=1.00, p>.05). This interaction also showed no significant differences last year (Wilks' lambda=0.998, F(6,4492)=0.58, p>.05). Similar results were also found at time 2 last year.

A more in depth report on these secondary effects can be found in Appendix V of the RECAP 2005-06 Annual Report Statistical Supplement. Appendix V contains Figure V-4 through Figure V-13.

Discussion

An area to investigate for future research might be whether the non-RECAP students in our analyses participated in some special program outside of RECAP. It is possible that some of them may have been in other preschool programs.

Also, for future research, we might use responses to a question in our PACE questionnaire which asks in what other preschool programs the child participated. The PACE is a Children's Institute survey for parents of students entering kindergarten, and will be used in RECAP classrooms beginning in 2006-07.

As mentioned earlier, we had an attrition rate of 54% in our initial RECAP 2004-05 student population. An area for further research might be to determine where these missing students surfaced. Are they in some other kindergarten or prekindergarten program in suburban or private schools?

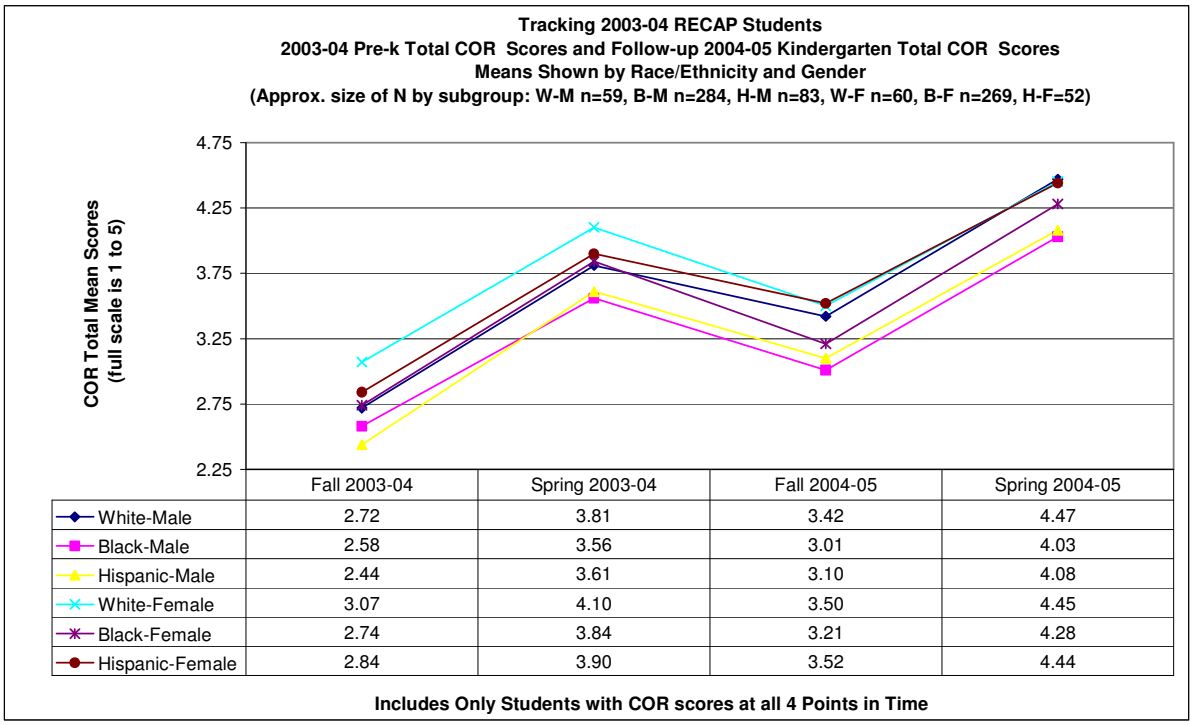
Tracking 4-Year-Olds from Pre-k through Kindergarten

An interesting view of this follow-up analysis can be seen in Figures V-14 and V-15 below. Figure V-14 shows how the 2003-04 RECAP students performed in prekindergarten and kindergarten in 2004-05. Figure V-15 shows how the 2004-05 RECAP students performed in prekindergarten and kindergarten during the 2005-06.

It is quite noticeable that the subgroup of White females either matched or outpaced all other subgroups for the entire 2 year period, 2 years in a row. In general, the female students of all Races/Ethnicities had higher scores than the males throughout the two year period.

Please note that the results shown in Table V-2, Figure V-14, and Figure V-15 below includes only students who had complete COR scores at pre-k time 1, pre-k time 2, Kindergarten time 1, and Kindergarten time 2.

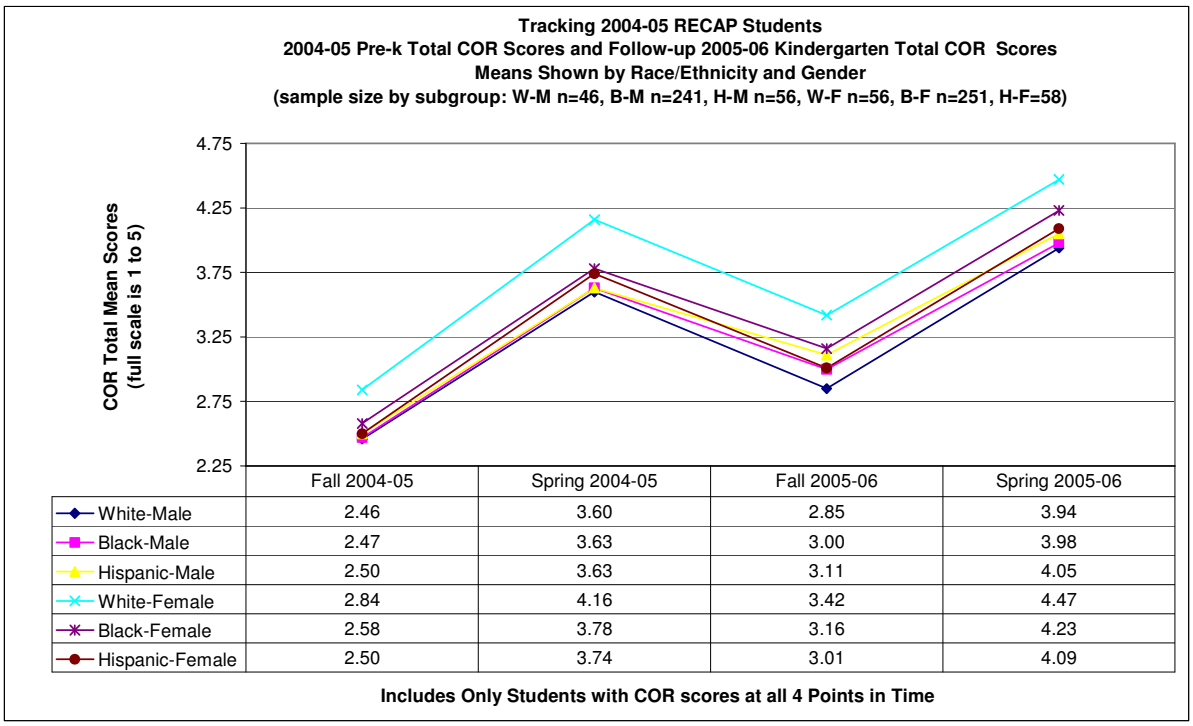
Figure V-14 tracking 2003-04 RECAP students through 2004-05 kindergarten.



	Fall 2003-04	Spring 2003-04	Fall 2004-05	Spring 2004-05
White-Male	2.72	3.81	3.42	4.47
Black-Male	2.58	3.56	3.01	4.03
Hispanic-Male	2.44	3.61	3.10	4.08
White-Female	3.07	4.10	3.50	4.45
Black-Female	2.74	3.84	3.21	4.28
Hispanic-Female	2.84	3.90	3.52	4.44

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

Figure V-15 tracking 2004-05 RECAP students through 2005-06 kindergarten.



	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

By tracking the total COR scores in Figures V-14 and V-15 above, we can also see that there was a noticeable decrease over the summer before kindergarten. Table V-2 below shows the size of the "summer drop" for all students combined, for the last 2 years. It can be seen from this table that there was a decrease over the summer of about 0.6 in the COR scores. Considering the standard deviation of the COR, the effect size was -0.9 this year, a huge drop.

Table V-2

2005-06 RECAP Annual Report

"The Summer Drop for 4-Year-Olds"
The decrease in COR scores for students who were 4 years old as RECAP students and then again as 5 year olds in Kindergarten

		Mean Total COR Scores					
Kindergarten Year		**Spring Pre-k COR as a 4-year-old**		**Fall K COR Score as a 5-year-old**		**"Summer Drop" For 4 year olds**	
	N	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Fall - Spring**	**Effect Size**
2004-05	830	3.74	0.63	3.19	0.76	-0.55	-0.80
2005-06	721	3.74	0.74	3.10	0.73	-0.64	-0.87

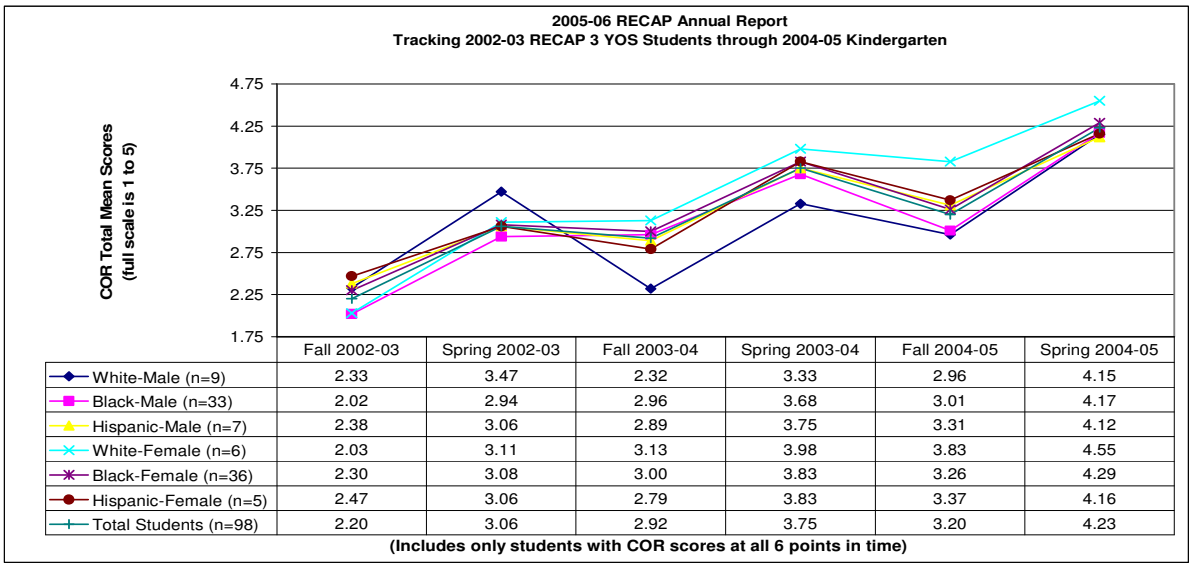
Summary

The changes between the spring of the pre-k year and the fall of the kindergarten year are a different teacher performing the kindergarten COR observations, the student having had three months of summer vacation experience, and the child being three months older. However, the relative position of the gender and race/ethnicity differences remains the same across teachers suggesting the differences described above are stable. By comparing Figures V-14 and V-15 it can be seen that these general patterns have now repeated for the last two years.

Tracking both 3- and 4-Year-Olds from Pre-k through Kindergarten

Figure V-16 below shows the COR scores for students that were 3 years old in the 2002-03 RECAP cohort tracked through kindergarten in 2004-05.

Figure V-16 Tracking 2002-03 RECAP 3 year-old students through 2004-05 kindergarten.

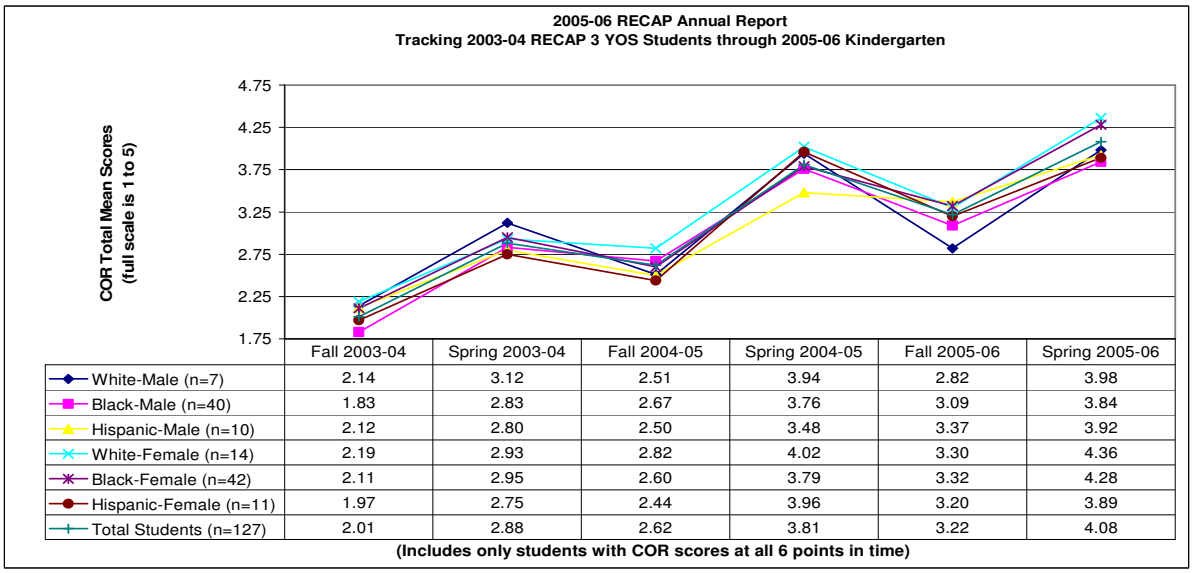


	Fall 2002-03	Spring 2002-03	Fall 2003-04	Spring 2003-04	Fall 2004-05	Spring 2004-05
White-Male (n=9)	2.33	3.47	2.32	3.33	2.96	4.15
Black-Male (n=33)	2.02	2.94	2.96	3.68	3.01	4.17
Hispanic-Male (n=7)	2.38	3.06	2.89	3.75	3.31	4.12
White-Female (n=6)	2.03	3.11	3.13	3.98	3.83	4.55
Black-Female (n=36)	2.30	3.08	3.00	3.83	3.26	4.29
Hispanic-Female (n=5)	2.47	3.06	2.79	3.83	3.37	4.16
Total Students (n=98)	2.20	3.06	2.92	3.75	3.20	4.23

(Includes only students with COR scores at all 6 points in time)

Figure V-17 below shows the COR scores for students that were 3 years old in the 2003-04 RECAP cohort tracked through kindergarten in 2005-06.

Figure V-17 Tracking 2003-04 RECAP 3 year-old students through 2005-06 kindergarten.

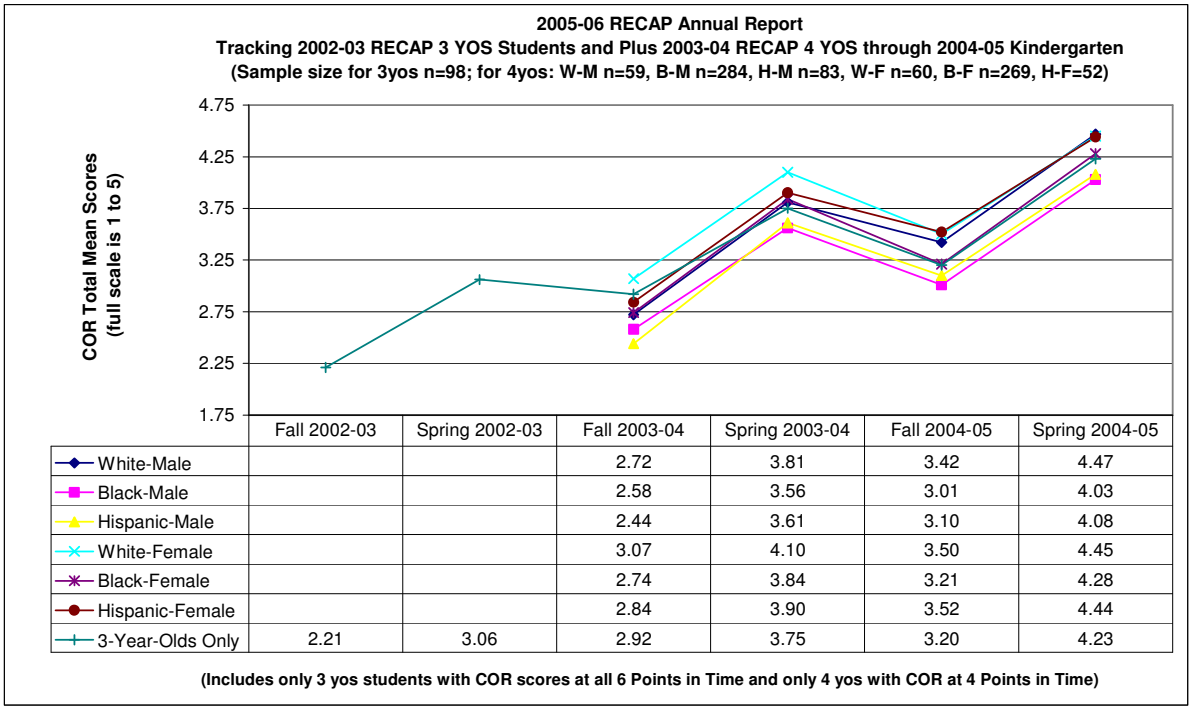


	Fall 2003-04	Spring 2003-04	Fall 2004-05	Spring 2004-05	Fall 2005-06	Spring 2005-06
White-Male (n=7)	2.14	3.12	2.51	3.94	2.82	3.98
Black-Male (n=40)	1.83	2.83	2.67	3.76	3.09	3.84
Hispanic-Male (n=10)	2.12	2.80	2.50	3.48	3.37	3.92
White-Female (n=14)	2.19	2.93	2.82	4.02	3.30	4.36
Black-Female (n=42)	2.11	2.95	2.60	3.79	3.32	4.28
Hispanic-Female (n=11)	1.97	2.75	2.44	3.96	3.20	3.89
Total Students (n=127)	2.01	2.88	2.62	3.81	3.22	4.08

(Includes only students with COR scores at all 6 points in time)

Figure V-18 below shows the COR scores for students that were 3 years old in the 2002-03 RECAP cohort tracked through 2004-05 kindergarten plus students who were in 2003-04 RECAP programs as 4 year-olds also tracked through 2004-05 kindergarten.

Figure V-18 Tracking 2002-03 RECAP 3yo students and plus 2003-04 RECAP 4yo through 2004-05 kindergarten.

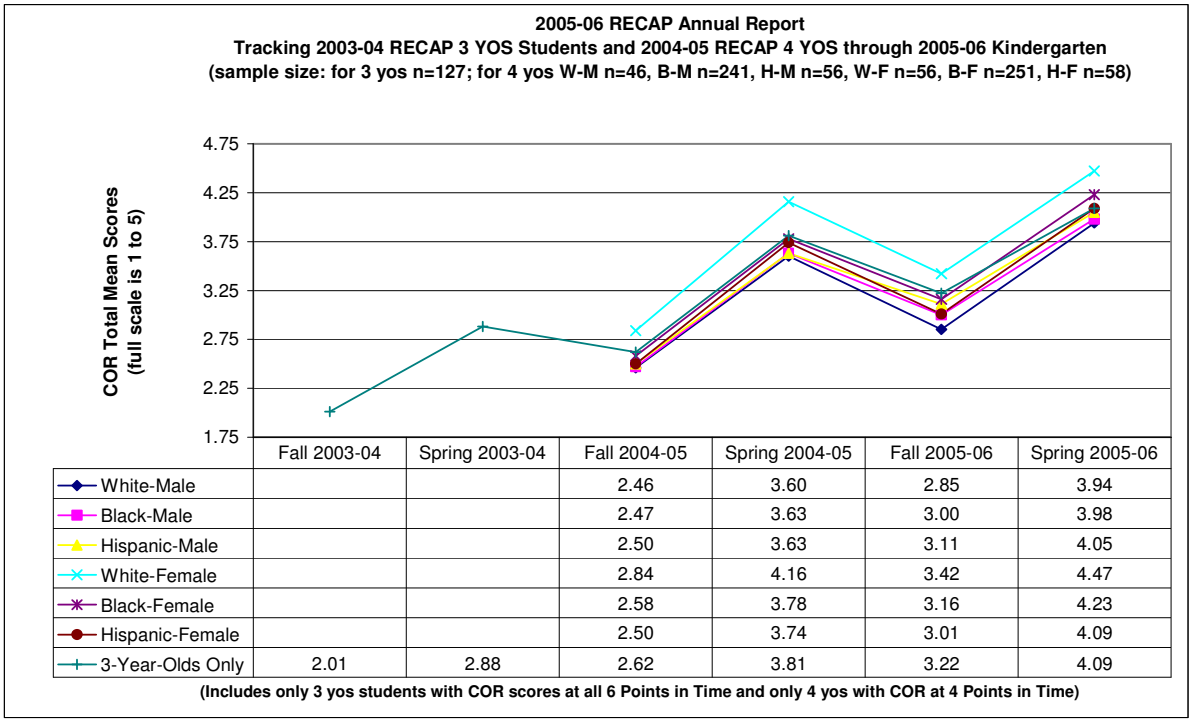


	Fall 2002-03	Spring 2002-03	Fall 2003-04	Spring 2003-04	Fall 2004-05	Spring 2004-05
White-Male			2.72	3.81	3.42	4.47
Black-Male			2.58	3.56	3.01	4.03
Hispanic-Male			2.44	3.61	3.10	4.08
White-Female			3.07	4.10	3.50	4.45
Black-Female			2.74	3.84	3.21	4.28
Hispanic-Female			2.84	3.90	3.52	4.44
3-Year-Olds Only	2.21	3.06	2.92	3.75	3.20	4.23

(Includes only 3 yos students with COR scores at all 6 Points in Time and only 4 yos with COR at 4 Points in Time)

Figure V-19 below shows the COR scores for students who were 3 years old in the 2003-04 RECAP cohort tracked through 2005-06 kindergarten *plus* students who were in 2004-05 RECAP programs as 4-year-olds also tracked through 2005-06 kindergarten.

Figure V-19 Tracking 2003-04 RECAP 3yo students and plus 2004-05 RECAP 4yo through 2005-06 kindergarten.



	Fall 2003-04	Spring 2003-04	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
3-Year-Olds Only	2.01	2.88	2.62	3.81	3.22	4.09

(Includes only 3 yos students with COR scores at all 6 Points in Time and only 4 yos with COR at 4 Points in Time)

By tracking the total COR scores in Figures V-18 and V-19 above, we can also see that there was a decrease in COR scores over the summer between when a student was 3 years old in pre-k and when he/she was 4 years old in pre-k. Table V-3 below shows the size of this "summer drop" for all students combined, for the last 2 years. It can be seen from this table that there was a decrease over the summer of about 0.3 this year in the COR scores. Considering the standard deviation of the COR, the actual effect size was 0.4 this year.

Table V-3

2005-06 RECAP Annual Report

"The Summer Drop for 3-Year-Olds"
The decrease in COR scores for students who were 3 years old as RECAP students and then again as 4-year-olds in RECAP

		Mean Total COR Scores					
Kindergarten Year		**Spring pre-k COR as a 3 year-old**		**Fall pre-k COR Score as a 4 year-old**		**"Summer Drop" For 3 year olds**	
	N	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Fall - Spring**	**Effect Size**
2004-05	98	3.06	0.62	2.92	0.63	-0.14	-0.22
2005-06	127	2.88	0.67	2.62	0.70	-0.26	-0.38

VI. Pre-k Children with Disabilities

Six Key Overall Findings

These findings on the state of Rochester pre-k students classified with a disability represent the work done in a partnership between the Rochester City School District's Department of Research, Evaluation and Testing, and the Department of Early Childhood Education. The findings shown below are a brief synopsis of results:

1) Most of the pre-k students classified as students with disabilities (within the City of Rochester, RCSD is responsible for all pre-k classification and placement) participate in programs evaluated by RECAP. Four years of data now yield information on over 900 students. This is good news, as it indicates (with obvious exceptions) that we will be able to make informed data-driven policy decisions, because multi-year data is typically more reliable than single-year results.

2) The boy-girl gaps are large for this population (a fact born out by a wealth of national and local studies), are even larger than anticipated: nearly a two-to-one ratio (about two-thirds of pre-k students with disabilities are boys).

3) Although pre-k students classified with a disability perform at consistently lower levels than the general education population, they often make gains commensurate with those of the general education population. As a whole, they appear to be neither gaining nor losing ground compared to our general education students in pre-K.

4) Children classified with a disability leave pre-k in fairly good shape overall, as measured by the COR and T-CRS. Definite gains are made.

5) We do have the ability to follow students both forwards and backwards. (For example, what happened to children who were classified as learning disabled? How do they perform in later years? What about children who are declassified when they enter kindergarten?)

6) We must keep in mind that we will not know the type of disabilities these students have until they enter kindergarten. We know there will be broad variations. But, we may be able to suggest where our pre-k special education programs are more effective, where the greatest needs are, and where to allocate resources and staff development.

The next 4 pages summarize the data where results are described.

Additional figures and tables presenting "Pre-k Children with Disabilities" data have been included in Appendix VI in the **RECAP 2005-06 Annual Report Statistical Supplement**. Included in the supplement are Figure VI-3 through Figure VI-6 and Table VI-5 through Table VI-10.

Table VI-1 Number of students in RECAP programs that required one or more special services.

Table VI-1								
RECAP 2005-06 Annual Report								
Pre-k Students with Disabilities Data*								
Number of Students in RECAP Programs That Required One or More Special Services								
Includes All Ages								
	Number and Percentage of Children in each Pre-k Cohort							
	2002-03		**2003-04**		**2004-05**		**2005-06**	
Primary Service**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
SL – Speech/Language Therapy	109	5.2	118	6.7	155	7.7	146	8.5
IS – Integrated Pre-School Special Class	69	3.3	67	3.8	61	3.0	55	3.2
IT – Itinerant Preschool Special Ed. Teacher	19	0.9	22	1.3	34	1.7	33	1.9
Other	9	0.4	9	0.5%	9	0.5	10	0.6
#RECAP Students with a Primary Service identified.	206	9.8	216	12.3	259	12.9	244	14.2
#RECAP Students with a RCSD ID identified.	2,109	-	1,759	-	2,009	-	1,720	-

Notes:

*** Data provided by the RCSD Research & Evaluation Group.**

% Denotes that percentage is #RECAP Students with Special Services divided by total #RECAP students with a RCSD ID identified.

**** Primary Service means that for each child that required one or more special services, a single, primary service was indicated.**

Table VI-2 Number of Unique Special Services Provided for each Child.

Table VI-2								
RECAP 2005-06 Annual Report								
Pre-k Students with Disabilities Data								
Number of Unique Types of Service Provided for Each Child by Cohort								
Includes All Ages								
	2002-03		**2003-04**		**2004-05**		**2005-06**	
# Unique Types of Services	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
0	1,903	90	1,543	88	1,750	87	1,476	86
1	91	4	115	7	133	7	117	7
2	74	4	66	4	67	3	70	4
3	25	1	24	1	39	2	40	1
4	13	1	9	0	16	1	12	1
5	1	0	1	0	3	0	4	0
6	2	0	1	0	1	0	1	0
Total	2,109	-	1,759	-	2,009	-	1,720	-
Notes: **% signifies # represented as the percentage of # column total.**								

Table VI-3 2003-04 student demographic information.

Table VI-3					
RECAP 2005-06 Annual Report					
Pre-k Students with Disabilities Data					
Demographic Information for 2003-04 RECAP Students Receiving 1 or More Special Services During the School Year					
Includes Only 3 and 4 Year-olds					
	Special Services (%)[1]		**No Special Services (%)[1]**		
Race/Ethnicity[3]	**Boys[2]**	**Girls**	**Boys[2]**	**Girls**	**Total**
White[4]	16 (15)	10 (23)	79 (14)	99 (16)	97
Black [4]	58 (56)	25 (58)	324 (58)	374 (62)	366
Hispanic[4]	25 (24)	6 (14)	110 (20)	95 (16)	112
Other	5 (5)	2 (5)	43 (8)	40 (7)	53
Total	104	43	556	608	1,311

Notes:

[1] Signifies percentage of column totals.

[2] Signifies Chi-square test on gender with special services was significant ($\chi^2 = 31.3$, $p<.05$).

[3] Signifies Chi-square tests on race/ethnicity with special services was not significant. ($\chi^2 = 2.7$, $p>.05$).

[4] Signifies Chi-square tests on interactions of race/ethnicity and gender with special services were significant for Black males ($\chi^2 = 16.3$, $p<.05$) and Hispanic males ($\chi^2 = 8.0$, $p<.05$).

Table VI-4 2004-05 student demographic information.

Table VI-4					
RECAP 2005-06 Annual Report					
Pre-k Students with Disabilities Data					
Demographic Information for 2004-05 RECAP Students Receiving 1 or More Special Services During the School Year					
Includes Only 3 and 4 Year-olds					
	Special Services (%)[1]		**No Special Services (%)[1]**		
Race/Ethnicity[3]	**Boys[2]**	**Girls**	**Boys[2]**	**Girls**	**Total**
White[4]	21 (15)	17 (25)	79 (12)	101 (13)	218
Black[4]	89 (65)	37 (54)	417 (65)	492 (64)	1,035
Hispanic[4]	22 (16)	13 (19)	114 (18)	129 (17)	278
Other	5 (4)	2 (3)	29 (5)	46 (6)	82
Total	137	69	639	768	1,613

Notes:

[1] Signifies percentage of column totals.

[2] Signifies Chi-square test for gender with special services was significant (Pearson $\chi^2 = 33.4$, $p<.05$).

[3] Signifies Chi-square tests on race/ethnicity with special services was not significant. (Pearson $\chi^2 = 5.9$, $p>.05$).

[4] Signifies Chi-square tests on interactions of race/ethnicity and gender with special services were significant for Black males ($\chi^2 = 27.2$, $p<.05$), but not for Hispanic males ($\chi^2 = 3.1$, $p>.05$), or White males ($\chi^2 = 1.6$, $p>.05$).

Tables VI-3 and VI-4 above demonstrate the fact that no race or ethnic group was over identified. However, boys were identified more frequently than girls.

Comparing pre to post growth for RECAP children with disabilities as compared to children who were not so identified

Figure VI-1 2003-04 COR and T-CRS change scores

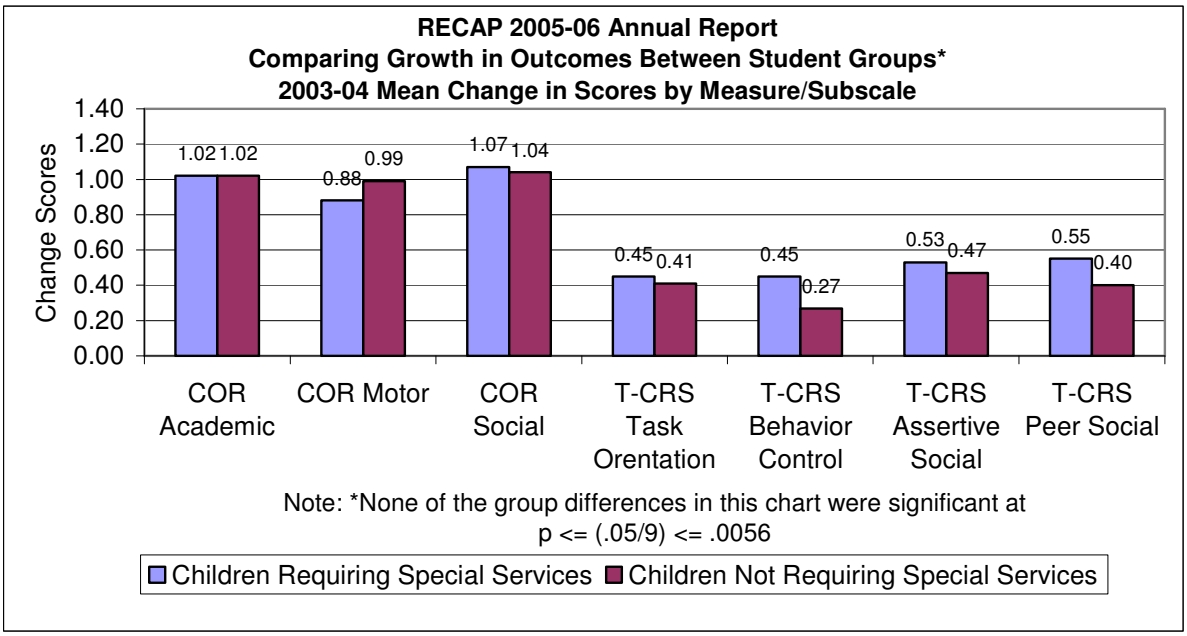
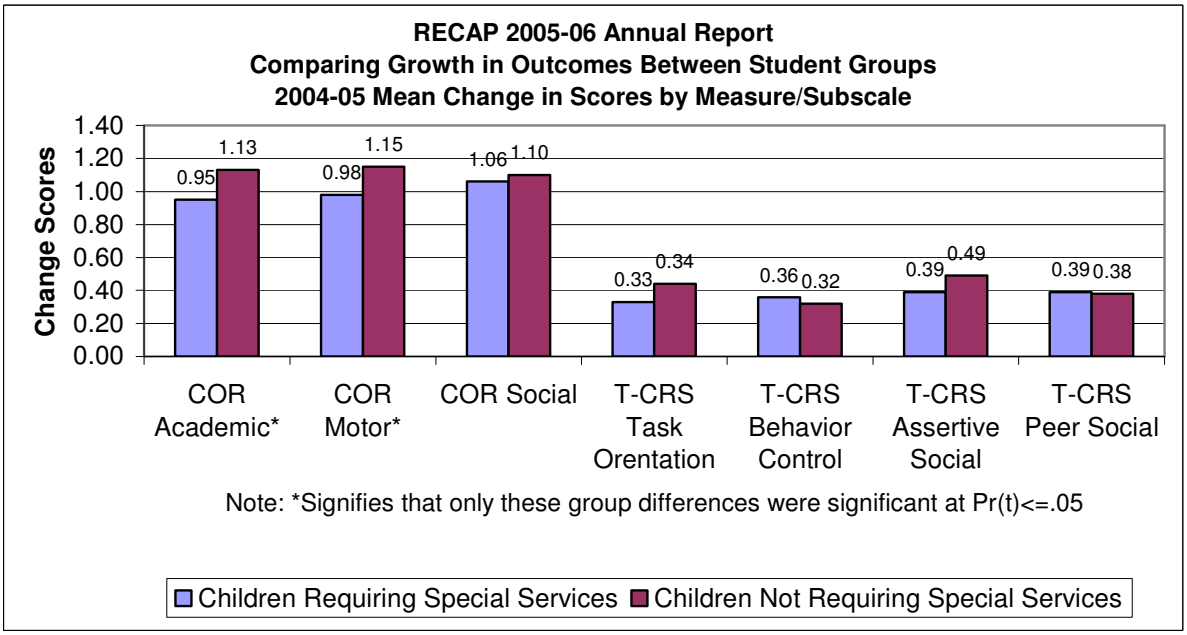


Figure VI-2 2004-05 COR and T-CRS change scores



VII. Children's Health Information

Survey Results

Overview

The CHI (first implemented in 1999) was developed by Children's Institute to provide preschool personnel with a conduit for obtaining systematic information from parents regarding their prekindergarten children, particularly in overall health. The CHI serves as an abbreviated snapshot to the more comprehensive Parent Appraisal of Children's Experiences (PACE), conducted at K-2 since 1998.

The CHI covers three main areas: demographics, general health information, and parents' major developmental concerns. CHI questionnaires were completed for 1,039 children in 2005-06 (45% of all RECAP pupils), generally by the child's mother (88%).

In 2005-06, for the first time, parent/guardian consent was required for inclusion of each child's health information into RECAP. Because of this, a total of 1,039 CHI forms were processed compared to 1,718 in 2004-05.

The following are some highlights of these findings: 22% of entering pre-k pupils have never visited a dentist (31% last year, and 38% two years ago); we are witnessing very high rates of asthma, with 18% of pupils' physicians reporting asthma; 10% of entering pre-k pupils have been hospitalized for asthma in the past year; and approximately 27% of the parents are concerned enough about other specific problems to suggest that their children are in need of additional services (CHI Item #14 through Item #20).

Section I. Summary of Major Findings – Demographic Information

This section provides information about the child and his or her family. This data was used to provide a demographic "snapshot" of the CHI sample. Items in this section include:

a. Child's race/ethnicity: 66% of the children were Black/African-American, 17% were White/Non-Hispanic, and 20% were Latino/Hispanic.

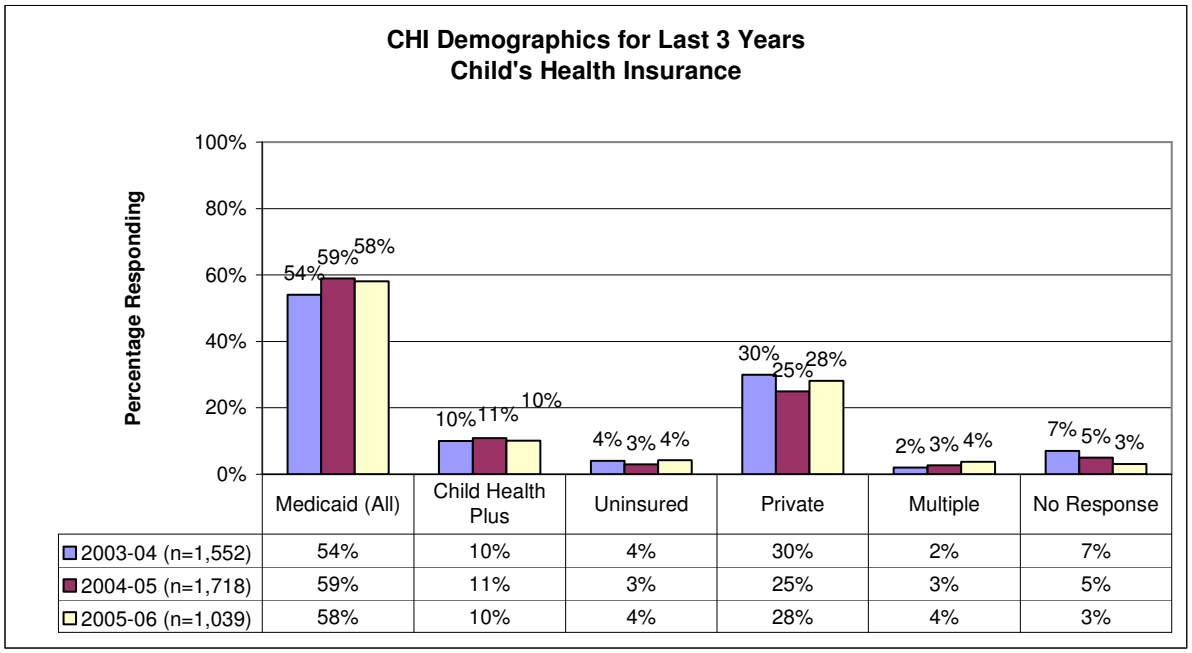
b. Child's home zip code: About 60% of the students this year were from only 4 zip codes: 14609, 14621, 14611, and 14605.

c. Whether the child has a doctor and/or has ever visited a dentist: 22% of the children were reported to have never visited a dentist (31% last year), whereas only 2% do not have a regular doctor.

d. Number of adults residing with the child: The most common household composition of adult(s) living with the registered child was a single mother and no other adult (37%); the second most common included both parents[1] and no other adults (27%).

e. Child's health insurance status: 96% of children in the sample had medical insurance coverage (97% last year). 68% of the children had either Medicaid or Child Health Plus insurance (down 2% from last year).

Figure VII-1 CHI demographics: child's health insurance.



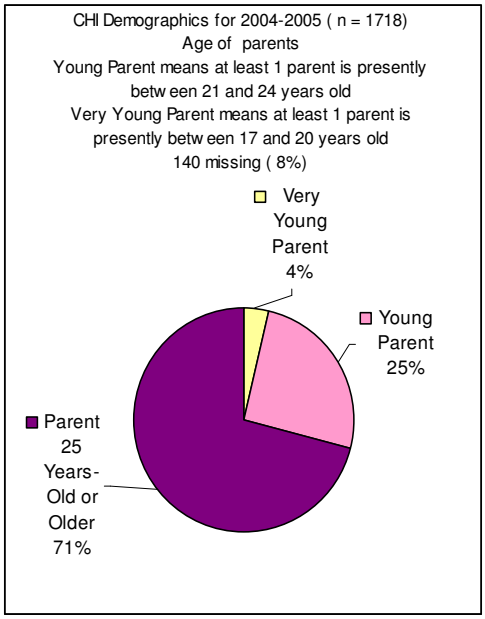
	Medicaid (All)	Child Health Plus	Uninsured	Private	Multiple	No Response
2003-04 (n=1,552)	54%	10%	4%	30%	2%	7%
2004-05 (n=1,718)	59%	11%	3%	25%	3%	5%
2005-06 (n=1,039)	58%	10%	4%	28%	4%	3%

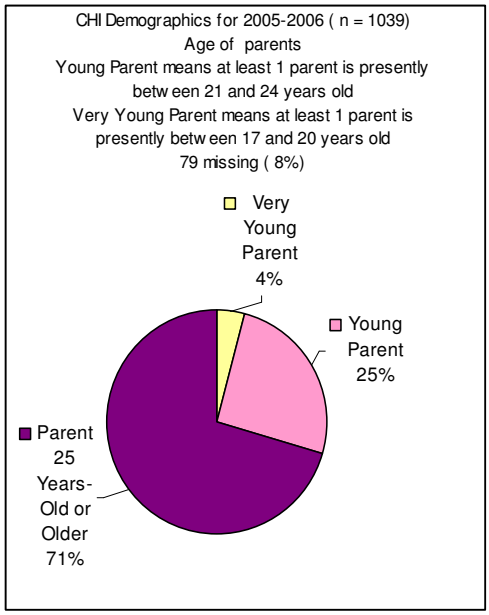
f. In the 2005-06 survey results, regarding the ages of the mothers and fathers: 29% of mothers and/or fathers were either young or very young parents when the child was born. We define a very young or young parent (at the time of the child's birth) as one who is 24 years old or younger when the CHI is completed. Of those parents, 4% were very young, 17-20 years old now or 13 to 16 years of age at the time of their child's birth. Note: ages were not provided this year for 12% of mothers and 26% of fathers.

[1] Throughout this report, we have used the term 'parent' to indicate the person completing the CHI. Actually, 4% of the respondents were not the parent, although most of these were other relatives.

Age of parents for last 2 years of the survey:

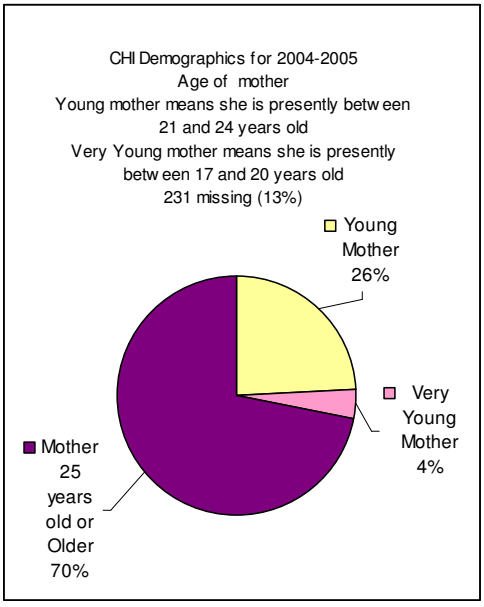
Figure VII-2 CHI demographics: age of parents

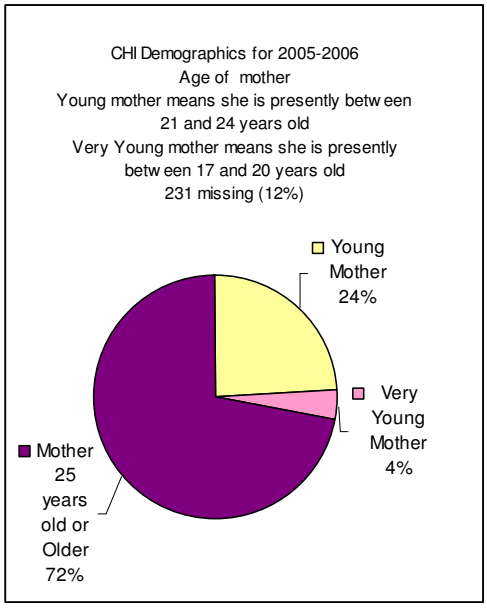




Age of mother for last 2 years of the survey:

Figure VII-3 CHI demographics: age of mother





g. The parents' highest completed level of education: Of those who answered, 80% of the mothers and 78% of the fathers had at least a high school education or had obtained a GED. This information was not provided for 14% of mothers and 27% of fathers. Nine percent of the mothers and 6% of the fathers were reported to have received special education services.

Section II. Summary of Major Findings – General Health Information

In this section, parents provide information regarding children's past and current health conditions, a general health history, including hospitalizations, allergies, indications of asthma or breathing problems, and elevated lead levels.

a. In 2005-06, parents indicated that 22% of the children have never been seen by a dentist. In 2004-05 this percentage was 31%. This is now the same level as those children entering kindergarten, which continues to be a concern. It is recommended by the American Academy of Pediatricians that children start seeing a dentist at age 18 months. Only 1% have never been to a doctor.

b. Children's illnesses, past and present, covered a wide range of syndromes. Identified were 9% who had recurrent ear infections, 7% with behavior problems, 5% with "low iron" (iron deficiency), and 6% who have already had early intervention services.

c. Twenty-three percent (23%) of the children had experienced a health condition that required emergency medical attention (down from 27% last year). Among the reported emergencies, 9% were related to asthma. Fifteen percent (15%) of parents reported that their child was taking at least one prescription medication.

d. Twenty-two percent (22%) of the children this year had one or more allergies, including 10% seasonal, 4% medication, and 4% food allergies. Last year the percentages were: 22% of the children had one or more allergies, including 10% seasonal, 5% medication, and 4% food allergies.

e. Thirteen percent (13%) of the children had been hospitalized at least overnight; this was the same as last year.

f. Ninety-eight percent (98%) of the children, according to parents in 2005-06, are in good or excellent overall health. This percentage last year was 97%, and 96% 2 years ago. Four percent of the parents reported that they would like to talk to the school nurse about their child's health.

g. High Lead levels:
Five percent (5%) of the parents reported that their child has high lead levels. We examined the rates of reported high lead levels by zip code and found the highest concentrations of occurrences this year in the 14608 (8%), 14611 (8%), and 14605 (7%)

neighborhoods. The following includes a summary Table and a chart showing the percentages of children with high lead levels by zip code for the last 3 years.

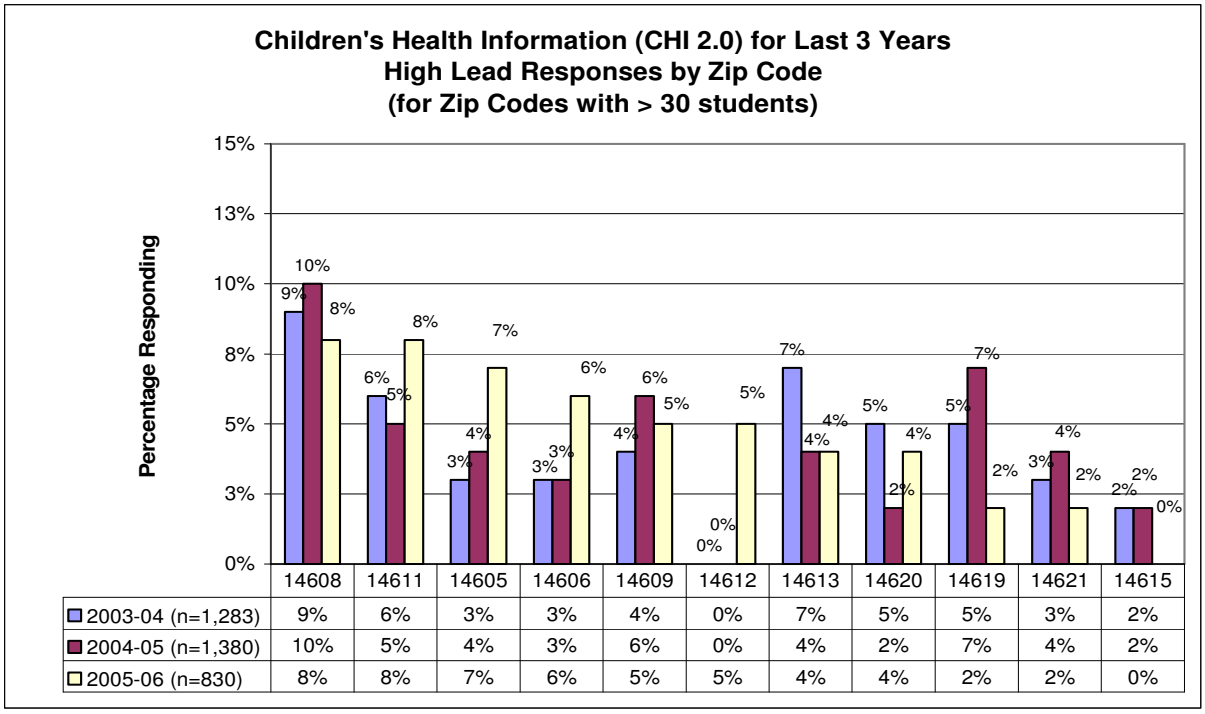
Table VII-1 High lead response by zip code.

High Lead Responses by Zip Code for Last 3 Years									
	2003-04			2004-05			2005-06		
Zip Code*	Student Count in Zipcode	High Lead Count	Percent	Student Count in Zipcode	High Lead Count	Percent	Student Count in Zipcode	High Lead Count	Percent**
14608	109	10	9%	97	10	10%	36	3	8%
14611	142	8	6%	150	8	5%	93	7	8%
14605	117	3	3%	105	4	4%	92	6	7%
14606	61	2	3%	66	2	3%	35	2	6%
14609	218	8	4%	282	16	6%	183	10	5%
14612	54	0	0%	53	0	0%	37	2	5%
14613	72	5	7%	107	4	4%	71	3	4%
14620	85	4	5%	84	2	2%	49	2	4%
14621	243	8	3%	292	12	4%	141	3	2%
14619	117	6	5%	103	7	7%	62	1	2%
14615	65	1	2%	41	1	2%	31	0	0%
Total	1283	55	4%	1380	66	5%	830	39	5%

Notes: * This table only includes zip codes with Student Count > 30 students in 2005-06.

**The rows in this table are sorted in descending order by the 2005-06 percent column.

Figure VII-4 High lead responses by zip code.



h. Asthma:
Several items specifically pertain to asthma and breathing problems**.** Overall, 19% of the children were reported to have asthma. Table VII-2 below contains more detailed results:

Table VII-2 Asthma and breathing problems

Table VII-2				
Asthma and Breathing Problems for Last 3 Survey Years				
CHI Item #	**Description**	**2003-04**	**200405**	**2005-06**
6	Child needs to stop playing because of breathing problems.	8%	8%	7%
7	At least 1 day a week child usually has wheezing, coughing, or shortness of breath.	12%	11%	11%
8	At least 1 day a week child usually wakes up from sleep because of wheezing, coughing, or shortness of breath.	7%	7%	6%
9	Doctor has said that child has asthma.	19%	18%	19%
9a	Child takes medication every day to prevent asthma symptoms.	8%	8%	9%
9b	Over the past 12 months at least 1 time child needed emergency medical visit for asthma.	12%	12%	10%

For children whose doctors have diagnosed them with asthma, we estimated severity levels. For a child to be classified in the "Significant" level he/she wheezes, coughs, or is short of breathe at least 3 times a week or wakes up with these symptoms at least once a week. To be in the "Mild or Past" level he/she wheezes, coughs or is short of breath fewer than 3 times a week and does not wake up with these symptoms. Looking at Table VII-3 below, five percent of the children, this past year, had significant asthma symptoms; 13% had mild or past asthma (up from 11% last year); and 1% had indeterminate asthma symptoms.

Table VII-3 asthma severity.

Asthma Severity Scale	2003-04		2004-05		2005-06	
	N	Percent	N	Percent	N	Percent
Indeterminate Asthma	14	1%	14	1%	7	1%
Significant Asthma	82	5%	93	6%	50	5%
Mild or Past Asthma	193	13%	190	11%	131	13%
Item #9 Has a doctor ever said your child has asthma?	289	19%	297	18%	188	18%
Actual responses	1510		1671		1016	
Non-responses	42	3%	47	3%	23	2%
Total returned surveys	1552		1718		1039	

Table VII-4 breathing problems.

Item 7: How many days a week does your child usually have wheezing, coughing, or shortness of breath?	2003-04		2004-05		2005-06	
	N	Percent	N	Percent	N	Percent
None	1314	88%	1470	89%	900	89%
One	91	6%	92	6%	63	6%
Two	47	3%	46	3%	21	2%
Three	21	1%	22	1%	12	1%
4 or more days	20	1%	22	1%	13	1%
No response	59	4%	66	4%	30	3%
# responses	1493	96%	1652	96%	1009	97%
Total returned surveys	1552		1718		1039	

Table VII-5 additional breathing problems.

Item 8: How many days a week does your child usually wake up from sleep because of wheezing, coughing, or shortness of breath?	2003-04		2004-05		2005-06	
	N	Percent	N	Percent	N	Percent
None	1397	93%	1537	93%	950	94%
One	53	4%	51	3%	30	3%
Two	27	2%	37	2%	19	2%
Three	11	1%	20	1%	8	1%
4 or more days	10	1%	9	1%	2	0%
No response	54	3%	64	4%	30	3%
# responses	1498	97%	1654	96%	1009	97%
Total returned surveys	1552		1718		1039	

i. Smoking in the child's home:
According to the 2005-06 respondents, it was stated that no one smoked in the child's homes 67% of the time, compared to 64% in last year's survey.

Figure VII-5 Smoking in the home.

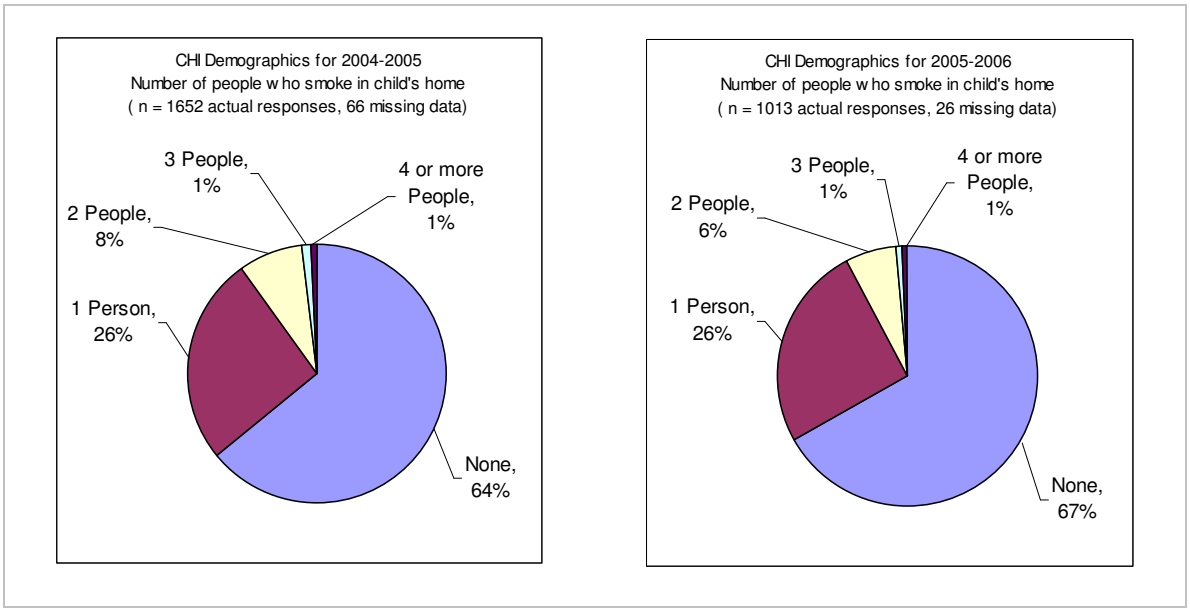
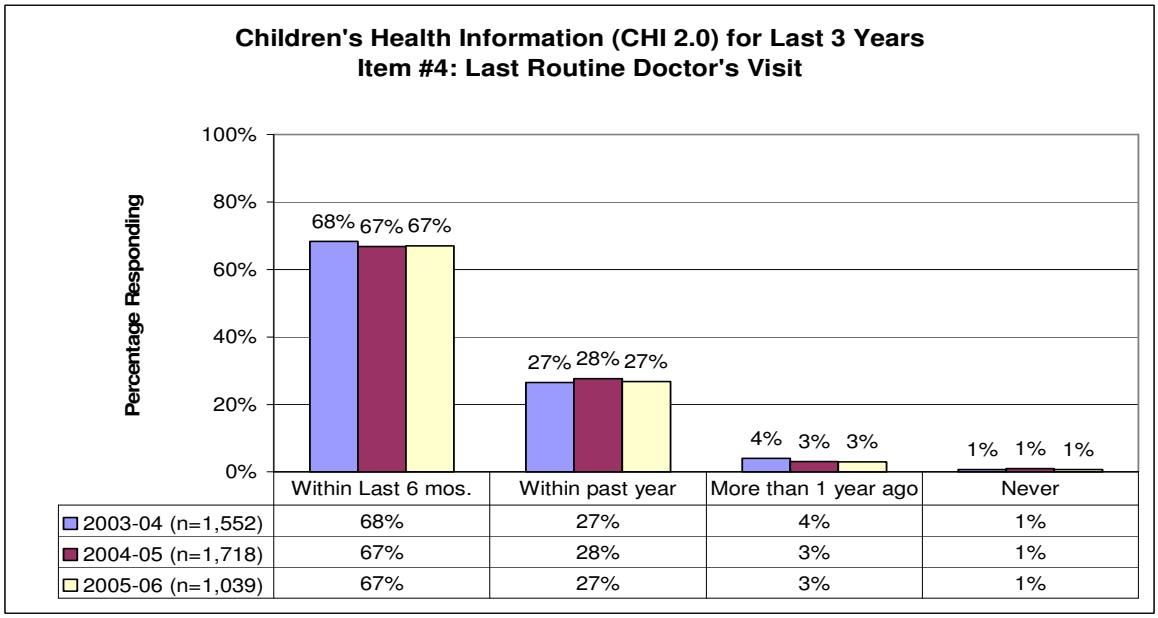


Figure VII-6 CHI health information: medical doctor visits.



	Within Last 6 mos.	Within past year	More than 1 year ago	Never
2003-04 (n=1,552)	68%	27%	4%	1%
2004-05 (n=1,718)	67%	28%	3%	1%
2005-06 (n=1,039)	67%	27%	3%	1%

Figure VII-7 CHI health information: dental visits.

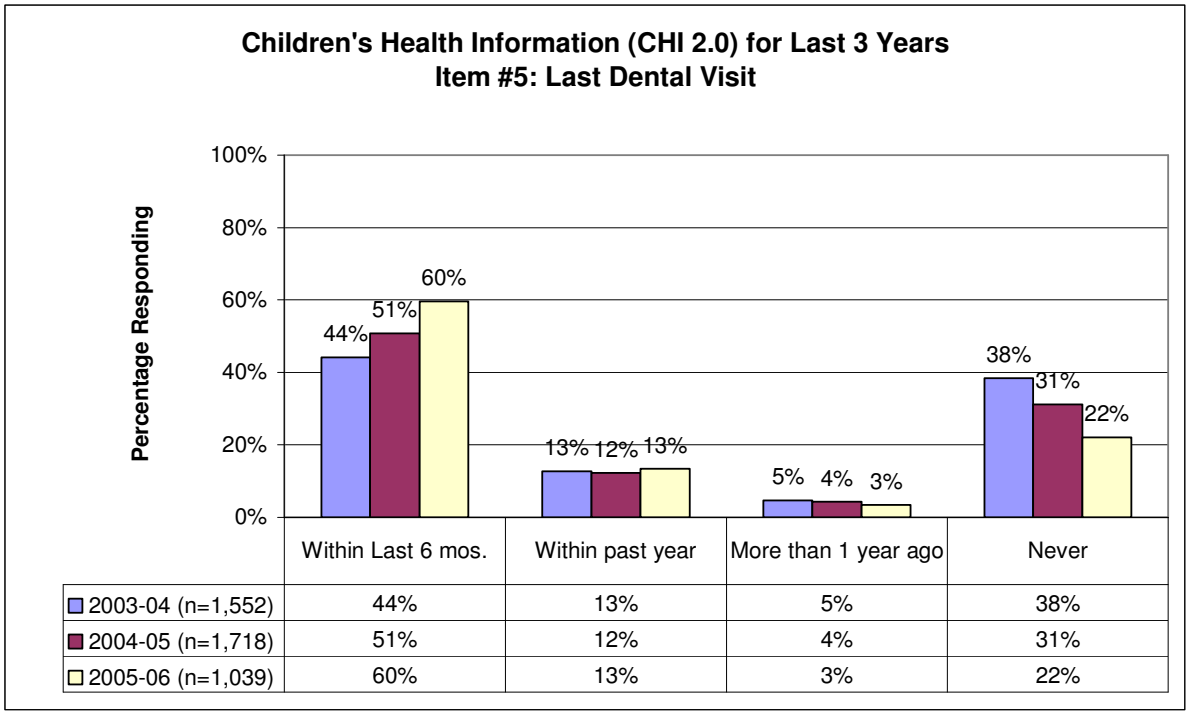
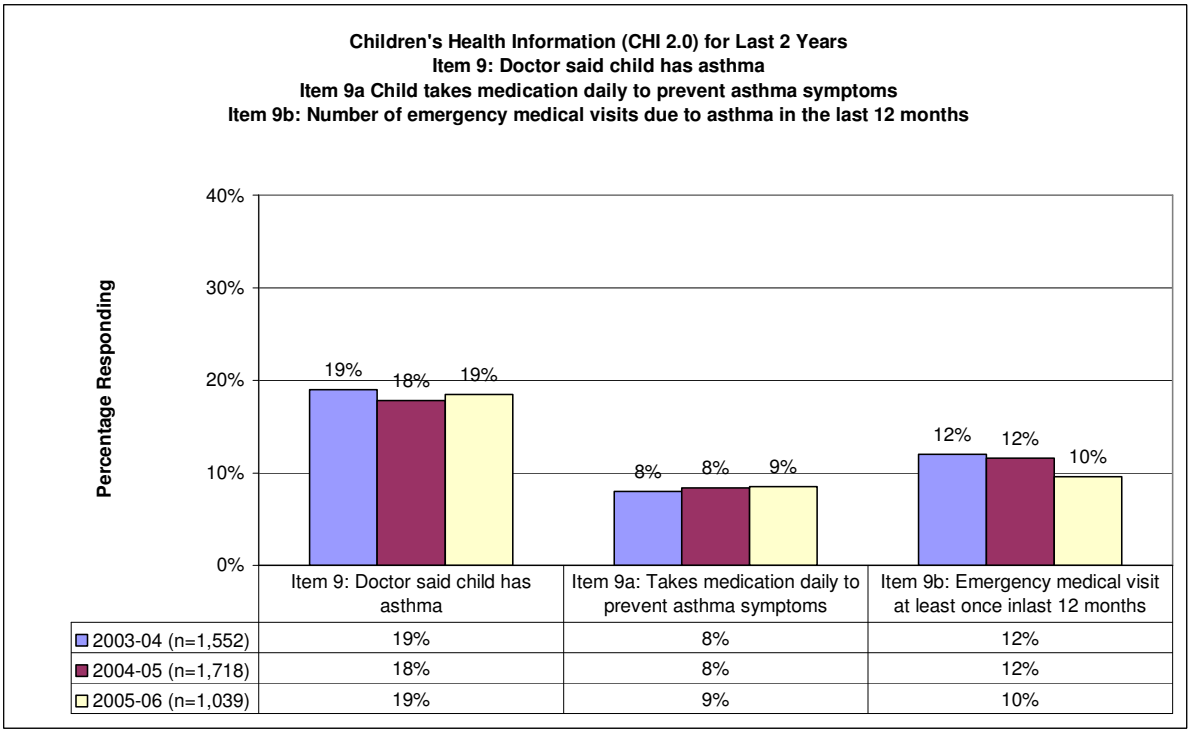


Figure VII-8 CHI health information: asthma



Additional Tables VII-6 through VII-16 and Figures VII-9 through VII-15 presenting Children's Health Information data have been included in Appendix VII in the RECAP 2005-06 Annual Report Statistical Supplement.

CHI Data and Children's Outcomes

Purpose of Analysis

Exploratory analyses were again performed using Children's Health Information (CHI) data, for the purpose of examining some links between the parent's answers on the CHI form and the student's performance in COR and T-CRS measures.

As we noted earlier, in 2005-06, for the 1st time, parent/guardian consent was required for inclusion of each child's health information into RECAP. Because of this, a total of only 1,039 CHI forms were processed compared to 1,718 in 2004-05.

2005-06 Fall COR Score Results

From the t-test results in Table VII-17 below, it can be seen that last year some of the parent's responses to certain questions on the CHI form were related to the student's fall COR total score. That is, if students had high lead level (-0.24 difference in COR scores between groups), iron deficiency (-0.30 difference), or asthma (-0.14 difference) as diagnosed by a doctor, there was a significant negative difference in the fall total COR scores for these students, compared to students who did not have these problems.

Last year, significant differences between groups were detected if the parent responded in the CHI that he/she would like to talk to someone about their child's problems for any of seven different problem areas, and responded to either "one or more," or "two or more" of these problem areas. In fact, the responses for high lead levels and about asking parents if they would like to talk to someone about their child's problems for any of seven different problem areas showed consistent results for the 2 previous years.

However, it can be seen in Table VII-18 below that for this year, no significant differences were seen between group means. We believe that this year's lack of significant differences between groups was at least partly attributable to the 40% reduction in our sample size which was mentioned earlier. Other than having the smaller sample, this year's lack of results cannot be explained at this time.

Table VII-17 2004-05 group differences as measured by fall COR total scores.

2004-05 Health Problems and Child Time 1 COR Outcomes							
t-Tests for Children with and without Health Problems Indicated in CHI							
Group Differences as Measured by Fall COR Total Scores							
	Students with Health Problem Indicated			Students without Health Problem Indicated			t-tests on Group Mean Differences
Health Problems Indicated in CHI by Parent	n	Mean	Std Dev	n	Mean	Std Dev	Differences in Means
High Lead Levels (Question 11h)	55	2.17	0.79	1130	2.42	0.73	-0.24*
Behavior Problems (Question 11a)	67	2.27	0.80	1118	2.41	0.73	-0.13
Early Intervention Services (Question 11d)	60	2.26	0.81	1125	2.41	0.73	-0.15
Ear Infections - 6 or more (Question 11c)	96	2.41	0.82	1089	2.41	0.73	0.00
"Low iron" or iron deficiency (Question 11j)	42	2.12	0.69	1143	2.42	0.74	-0.30*
Seasonal Allergies (Question 2c)	108	2.46	0.77	1077	2.40	0.74	+0.06
Asthma diagnosed by doctor (Question 9)	205	2.29	0.72	946	2.43	0.74	-0.14*
One or more talking topics requested by parent (Questions 14-20)	290	2.29	0.72	895	2.44	0.74	-0.15*
Two or more talking topics requested by parent (Questions 14-20)	94	2.25	0.65	1091	2.42	0.74	-0.17*
Note: * Significant at Pr (t) <=.05							

Table VII-18 2005-06 group differences as measured by fall COR total scores.

2005-06 Health Problems and Child Time 1 COR Outcomes							
t-Tests for Children with and without Health Problems Indicated in CHI							
Group Differences as Measured by Fall COR Total Scores							
	Students with Health Problem Indicated			Students without Health Problem Indicated			t-tests on Group Mean Differences
Health Problems Indicated in CHI by Parent	n	Mean	Std Dev	n	Mean	Std Dev	Differences in Means
High Lead Levels (Question 11h)	31	2.51	0.77	743	2.57	0.72	-0.06
Behavior Problems (Question 11a)	49	2.56	0.83	725	2.56	0.72	0.00
Early Intervention Services (Question 11d)	44	2.37	0.73	730	2.57	0.72	-0.20
Ear Infections - 6 or more (Question 11c)	70	2.65	0.82	704	2.55	0.71	+0.10
"Low iron" or iron deficiency (Question 11j)	33	2.73	0.80	741	2.56	0.72	+0.17
Seasonal Allergies (Question 2c)	87	2.65	0.71	687	2.55	0.72	+0.10
Asthma diagnosed by doctor (Question 9)	140	2.58	0.74	615	2.55	0.71	+0.03
One or more talking topics requested by parent (Questions 14-20)	185	2.52	0.75	589	2.58	0.71	-0.06
Two or more talking topics requested by parent (Questions 14-20)	77	2.43	0.70	697	2.58	0.72	-0.15
Note: * Significant at Pr (t) <=.05							

2004-05 Growth in COR Score Results

From the t-test results in Table VII-19 below, it can be seen that last year, the parent's responses to certain questions on the CHI form are also sometimes related to the student's growth in the total COR score, as measured from fall 2004 to spring 2005. If the parent indicated last year that the child has had behavior problems, had early intervention services, or if the parent specified the he/she would like to talk to someone about their child's problems for any of seven different problem areas; and responded to "one or more" of these problem areas, then significant negative differences were found for these students as opposed to the group that did not have these parent responses. In fact, the responses concerning the child's behavior problems showed consistent, significant differences for the previous 2 years in a row.

However, it can be seen in Table VII-20 below that for this year, no significant differences are seen between group means. This year's lack of significant differences between groups was at least partly attributed to the 40% reduction in our sample size which was mentioned earlier. As stated earlier for the fall COR scores, other than having the smaller sample, this year's results cannot be explained.

Table VII-19 2004-05 group differences as measured by COR growth.

2004-05 Health Problems and Child Changes in COR Outcomes t-Tests for Children with and without Health Problems Indicated in CHI Group Differences as Measured by COR Growth							
	Students with Health Problem Indicated			Students without Health Problem Indicated			t-tests on Group Mean Differences
Health Problems Indicated in CHI by Parent	n	Mean	Std Dev	n	Mean	Std Dev	Differences in Means
High Lead Levels (Question 11h)	40	1.05	0.60	913	1.19	0.60	-0.14
Behavior Problems (Question 11a)	51	0.98	0.57	902	1.20	0.60	-0.22*
Early Intervention Services (Question	51	0.98	0.55	902	1.20	0.60	-0.22*
Ear Infections - 6 or more (Question	81	1.16	0.58	872	1.19	0.60	-0.03
"Low iron" or iron deficiency (Question	33	1.18	0.50	920	1.18	0.60	0.00
Seasonal Allergies (Question 2c)	92	1.14	0.66	861	1.19	0.59	-0.05
Asthma diagnosed by doctor (Question	175	1.22	0.63	751	1.17	0.59	0.04
One or more talking topics requested by parent (Questions 14-20)	215	1.09	0.59	738	1.21	0.60	-0.12*
Two or more talking topics requested by parent (Questions 14-20)	71	1.10	0.59	882	1.19	0.60	-0.09
Note: * Significant at Pr (t) <=.05							

Table VII-20 2005-06 group differences as measured by COR growth.

2005-06 Health Problems and Child Changes in COR Outcomes t-Tests for Children with and without Health Problems Indicated in CHI Group Differences as Measured by Fall COR Growth							
	Students with Health Problem Indicated			Students without Health Problem Indicated			t-tests on Group Mean Differences
Health Problems Indicated in CHI by Parent	n	Mean	Std Dev	n	Mean	Std Dev	Differences in Means
High Lead Levels (Question 11h)	23	1.29	0.48	602	1.22	0.65	+0.07
Behavior Problems (Question 11a)	39	1.04	0.64	586	1.24	0.65	-0.20
Early Intervention Services (Question	26	1.31	0.53	599	1.22	0.65	+0.09
Ear Infections - 6 or more (Question	52	1.08	0.67	573	1.24	0.64	-0.16
"Low iron" or iron deficiency (Question	26	1.05	0.57	599	1.23	0.65	-0.18
Seasonal Allergies (Question 2c)	68	1.29	0.73	557	1.22	0.64	+0.07
Asthma diagnosed by doctor (Question	119	1.23	0.67	490	1.23	0.64	0.00
One or more talking topics requested by parent (Questions 14-20)	144	1.16	0.60	481	1.25	0.66	-0.09
Two or more talking topics requested by parent (Questions 14-20)	57	1.22	0.65	568	1.23	0.65	-0.01
Note: * Significant at Pr (t) <=.05							

2004-05 T-CRS Score Results

From last year's t-test results in Table VII-21 below, it can be seen that the parent's responses to certain questions on the CHI form were also sometimes related to the presence of a T-CRS behavior control risk factor identified for the student. Last year, if the parent indicated that the child has had behavior problems or an ear infection problem, or if the parent specified that he/she would like to talk to someone about the child's problems for any of seven different problem areas and responded to "one or more" of these problem areas, then significant negative differences were found for these students as opposed to the group that did not have these parent responses.

Table VII-22 below, which is based on this year's data, shows no significant differences seen between group means for any of the questions, except for the question concerning behavior problems. Again, other than for having the smaller CHI sample, this year's results cannot be explained at this time.

It is interesting to see that behavior control problems as noted by the teacher in the fall T-CRS measures are statistically related to behavior control problems as identified by the parent in the fall CHI form, for many of the students. This shows agreement of teacher and parent for externalizing behaviors and has been replicated in each of the last 3 years' results.

Table VII-21 2004-05 group differences as measured by fall T-CRS behavior risk factor presence.

2004-05 Health Problems and Child T-CRS Behavior Control Outcomes							
t-Tests for Children with and without Health Problems Indicated in CHI							
Group Differences as Measured by Fall T-CRS Behavior Risk Factor Presence							
	Students with Health Problem Indicated			Students without Health Problem Indicated			t-tests on Group Mean Pct. Differences
Health Problems Indicated in CHI by Parent	n	Pct.**	Std Dev	n	Pct.**	Std Dev	Differences in Mean Pct.
High Lead Levels (Question 11h)	56	14%	35%	1138	10%	30%	+4%
Behavior Problems (Question 11a)	68	22%	42%	1126	10%	30%	+12%*
Early Intervention Services (Question 11d)	60	13%	34%	1134	10%	30%	+3%
Ear Infections - 6 or more (Question 11c)	96	18%	38%	1098	10%	30%	+8%*
"Low iron" or iron deficiency (Question 11j)	44	14%	35%	1150	10%	30%	+4%
Seasonal Allergies (Question 2c)	110	11%	31%	1084	10%	31%	+1%
Asthma diagnosed by doctor (Question 9)	211	11%	32%	948	10%	30%	+1%
One or more talking topics requested by parent (Questions 14-20)	301	16%	36%	893	9%	29%	+7%*
Two or more talking topics requested by parent (Questions 14-20)	102	16%	37%	1092	10%	30%	+6%
Notes: * significant at Pr (t) <=.05							
Pct. denotes percentage of students with t-crs risk factor present**							

Table VII-22 2005-06 group differences as measured by fall T-CRS behavior risk factor presence.

2005-06 Health Problems and Child T-CRS Behavior Control Outcomes							
t-Tests for Children with and without Health Problems Indicated in CHI							
Group Differences as Measured by Fall T-CRS Behavior Risk Factor Presence							
	Students with Health Problem Indicated			Students without Health Problem Indicated			t-tests on Group Mean Pct. Differences
Health Problems Indicated in CHI by Parent	n	Pct.**	Std Dev	n	Pct.**	Std Dev	Differences in Mean Pct.
High Lead Levels (Question 11h)	36	14%	35%	774	9%	28%	+5%
Behavior Problems (Question 11a)	50	28%	45%	760	8%	27%	+20%*
Early Intervention Services (Question 11d)	51	12%	21%	759	9%	28%	+3%
Ear Infections - 6 or more (Question 11c)	71	11%	32%	739	9%	28%	+2%
"Low iron" or iron deficiency (Question 11j)	40	13%	33%	770	9%	28%	+4%
Seasonal Allergies (Question 2c)	88	9%	29%	722	9%	29%	0%
Asthma diagnosed by doctor (Question 9)	143	11%	32%	647	9%	28%	+2%
One or more talking topics requested by parent (Questions 14-20)	201	10%	31%	609	9%	28%	+2%
Two or more talking topics requested by parent (Questions 14-20)	83	11%	31%	727	9%	28%	+2%
Notes: * significant at Pr (t) <=.05							
Pct. denotes percentage of students with t-crs risk factor present**							

VIII. Parent Involvement and Child Outcomes

Purpose

In addition to student classroom attendance, attendance of parents in a variety of program activities has been collected for a majority of RECAP programs. The purpose of this study was to examine key parent attendance indicators to see if any relationships exist between parent involvement and the performance of children.

Summary of Findings

By performing and replicating a cluster analysis on the parent attendance data, three distinct categories of parent involvement were detected which was consistent over the last 2 school years. These groupings for parents included: "Group Involvement," "Individual Involvement," and "Low Involvement" types. For all RECAP programs combined, 55% of the parents were categorized by this cluster analysis as of the "Low Involvement" type, 27% were "Group Involved" and 18% were "Individual Involved."

There was a large variation among programs regarding the frequency of the 3 involvement types. One program at the high extreme had 79% of their parents categorized as "Low Involvement" while another program at the lower end of the range had 37% of their parents categorized as "Low Involvement."

This year, we found that both the time 1 COR and T-CRS scores were related to the parent involvement type; parents with individual involvement had children with higher academic skills. The "Individual Involvement" type of parents had children who scored 0.4 higher in the time 1 academic COR subscale compared to the children of "Low Involvement" parents. Furthermore, the "Individual Involvement" type of parents had children who scored 0.3 higher in the time 1 social and motor skills COR subscales compared to the children of "Low Involvement" parents.

However, time 2 scores and growth in scores in these measures was not related to parent involvement types this year. Last year, in results of this same study, we found that the growth in the academic COR subscale was mildly related to parent involvement type. Last year the "Group Involvement" type of parents had children who grew 1.13 in the COR academic subscale compared to "Low Involvement" parents whose children grew 0.99. However, as stated earlier we could not replicate this effect in this year's study. Also, last year there were no differences in children's T-CRS pre and post scores for the different parent involvement types, but this year we did detect a time 1 T-CRS effect.

However, there were significant interactions of program by parent involvement. In other words, for parents in some specific programs, parent involvement type was indeed related to a child's performance in both COR and T-CRS scores.

Parent Attendance

Section 1a. Parent Attendance Data

Parent Program Contacts:

Four different types of parent-program contacts were recorded:

1) Attendance at parent group meetings (percentage of actual number held)
2) Visits at parent's home by parent group leaders or other staff
3) Visits to the classroom
4) Attendance at teacher-parent conferences

These four indicators are not independent of each other; for example, parents who did not attend parent group meetings may have received more frequent visits at their home.

Because the four indicators are interrelated, it is misleading to look at them as if they were independent of one another. Therefore, a K-Means cluster analysis was performed and a 3-cluster solution was chosen based on stability of clusters (consistency over years), sufficient number of members for each cluster and interpretability.

Sample:

Only those parents and students were included for whom there was a complete set of fall and spring COR observations for the student. Having a complete set of COR scores for a student was operationalized as a sign that the student was in the classroom all year (not transient). Only 6 RECAP programs that had 40 or more students with parent attendance data, in each of the two test years, were included in these analyses. Also, 2004-05 and 2005-06 cohort data were combined when permissible, to insure a large enough sample size for the following analyses.

Method:

In running the K-Means procedure, we first converted all four indicators into Z-scores (A Z-score represents the position of an individual score in terms of standard deviations from the mean) and inspected for outliers. All 4 indicators had positive outliers, a few parents whose high level of involvement was atypical. Outliers above 2.5 standard deviations were removed from further analysis.

By running K-Means cluster analyses on 2004-05 and 2005-06 cohort data both together and separately, it was discovered that there were some very consistent clusters found across both cohorts. That is, when analyzed together and separately, the data from the both cohorts

resulted in similar clusters. See Figure VIII-1 for the combined cohort data and Figures VIII-2 and VIII-3 for the two cohorts separately.

Results:

Figure VIII-1 below shows the results of the K-Means cluster analysis when combining the 2004-05 and 2005-06 cohort data.

Figure VIII-1 Types of involvement derived from the 2004-05 and 2005-06 cohorts combined.

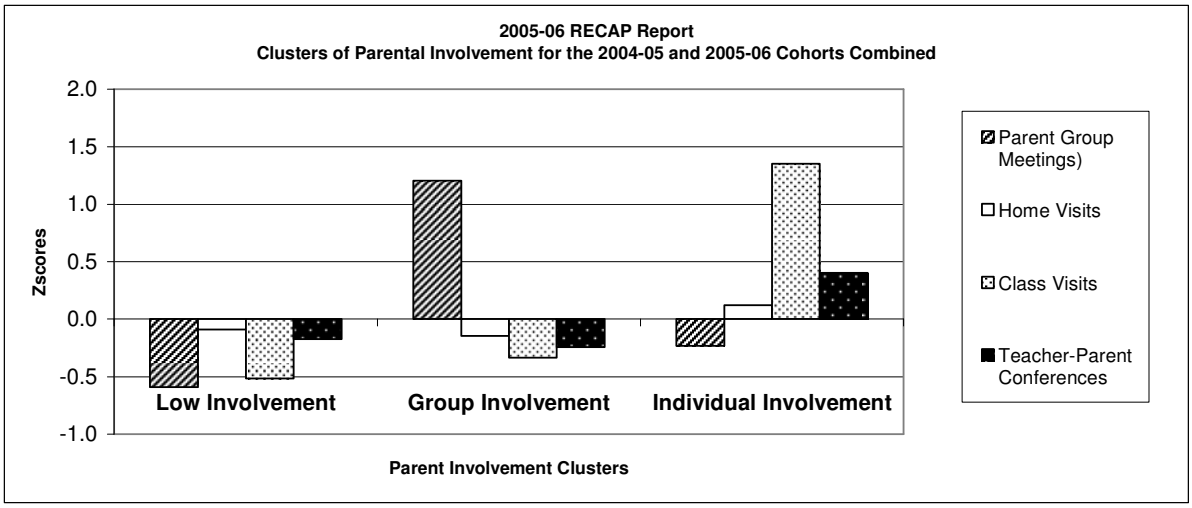


Figure VIII-2 Types of involvement derived from the 2004-05 cohort data.

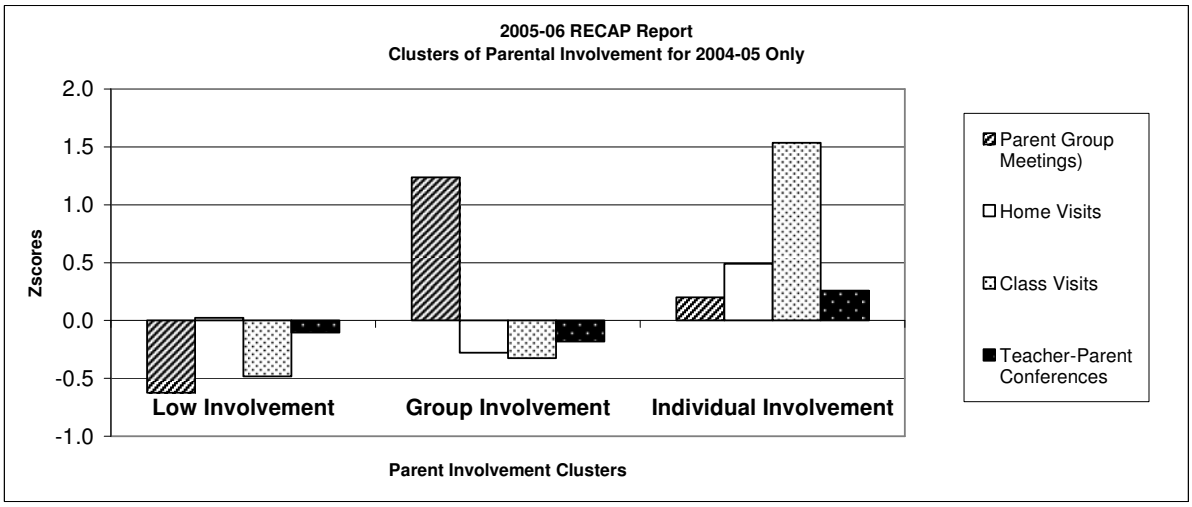
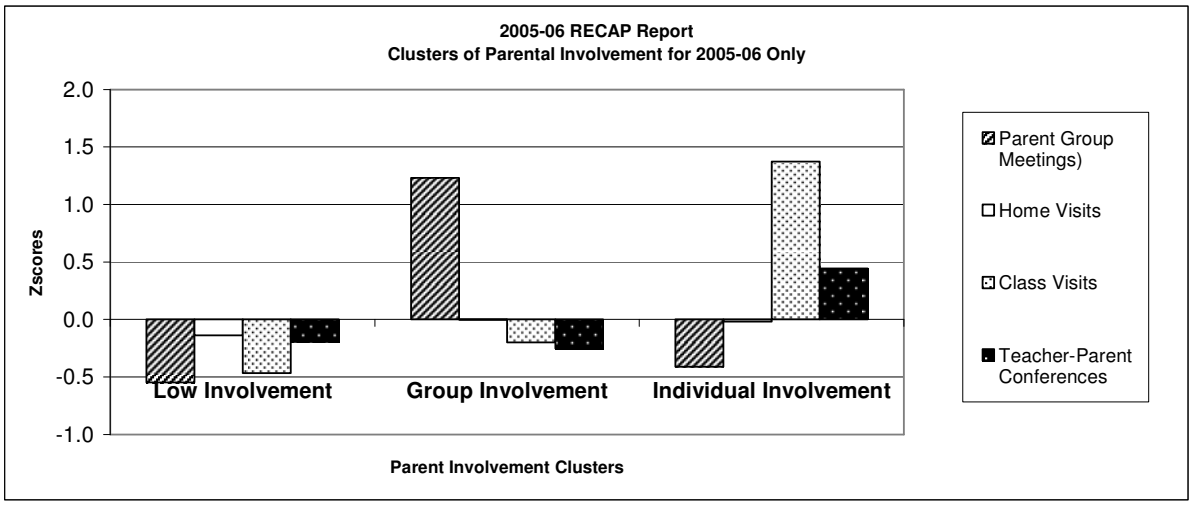


Figure VIII-3 Types of involvement derived from the 2005-06 cohort data.



Figures VIII-1 through VIII-3 above show the average Z-scores of the 4 indicators for each of the 3 clusters identified. The first cluster was labeled "Low Involvement" with the caveat that we simply have no data on how much or how little parents are involved in their children's education and experiences outside of the program. Therefore, the low involvement label is short for low involvement in the program. The second cluster was labeled "Group Involvement" because parents in that cluster had an extraordinary high level of attendance at parent group meetings compared to members in the other clusters. Members of the third cluster were much more likely to participate in individual or one-to-one type activities such as: classroom visits, teacher-parent conferences, and home visits. This group was labeled "Individual Involvement."

Table VIII-1 below shows how many parents belonged to each of the 3 involvement types when the 2004-05 and 2005-06 cohorts were combined.

Table VIII-1
2005-06 RECAP Annual Report
Number of Parents Identified by Parent Involvement Type by Program[1]
2004-05 and 2005-06 Cohorts Combined
Parent Involvement Types from K-Means Cluster Analysis

	Low Involvement		Group Involvement		Individual Involvement		
Program	**#Parents**	**Pct.[2]**	**#Parents**	**Pct.[2]**	**#Parents**	**Pct.[2]**	**Total**
A	216	50.6%	194	45.4%	17	4.0%	427
B	56	36.6	18	11.8	79	51.6	153
C	63	60.0	25	23.8	17	16.2	105
E	108	78.8	28	20.4	1	0.7	137
I	40	57.1	28	40.0	2	2.9	70
J	204	59.5	36	10.5	103	30.0	343
Total	687	55.6	329	26.6	219	17.7	1235

[1] Denotes that only the 6 RECAP programs that had 40 or more students with parent attendance data in each of the two test years were included.
[2] Denotes percentage for each program calculated across rows, with row total as the denominator.

In the pie chart in Figure VIII-4 below, we can see that when all programs are combined, 55% of all parents in the study fell into the "Low Involvement" parent involvement type. Twenty-seven percent were of the "Group Involvement" type and 18% were of the "Individual Involvement" type. For comparison purposes, Figure VIII-5 below shows the frequency of involvement types by individual cohort. It can be seen from Figures VIII-4 and VIII-5 that little has changed in the frequency of parents by involvement type, for all programs, during the past 2 years.

Figure VIII-4 Frequency of parent involvement types for the 2004-05 and 2005-06 cohorts combined.

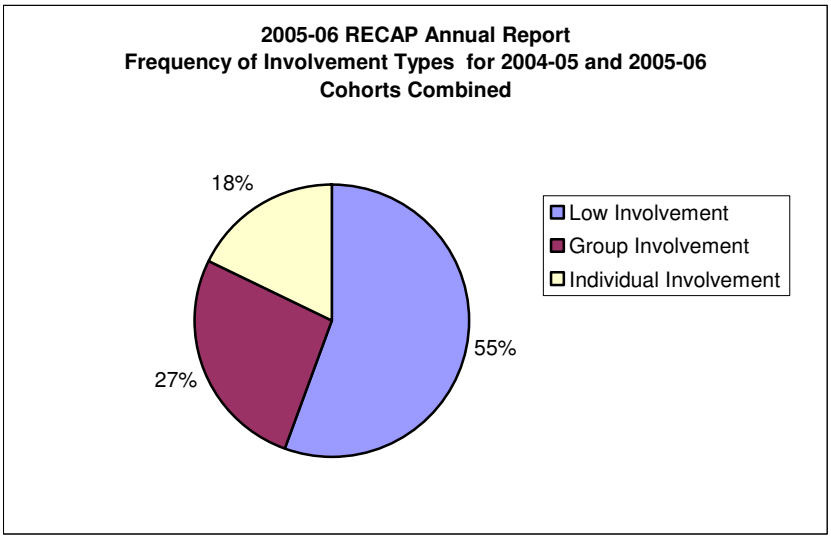


Figure VIII-5 displaying the last two years of frequencies of parent involvement types for the 2004-05 and 2005-06 cohorts separately.

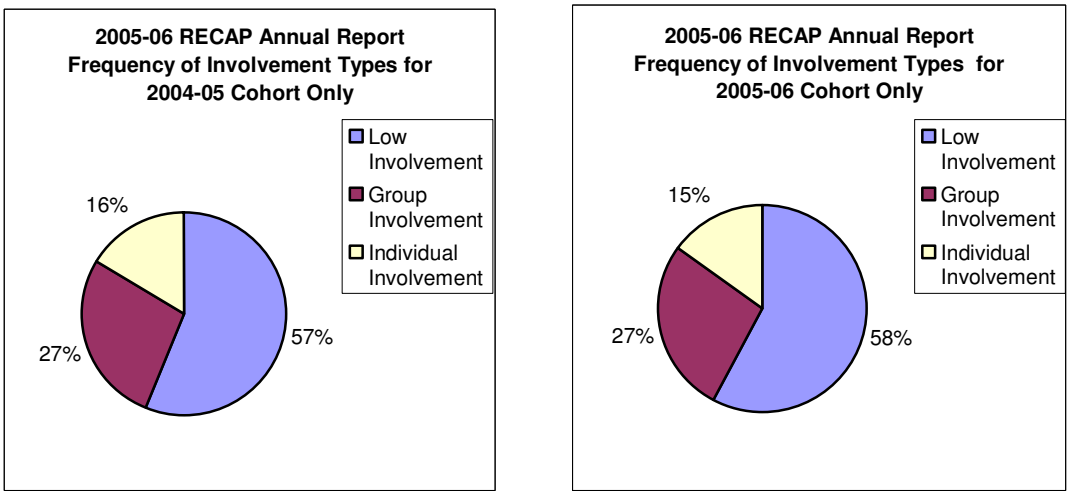
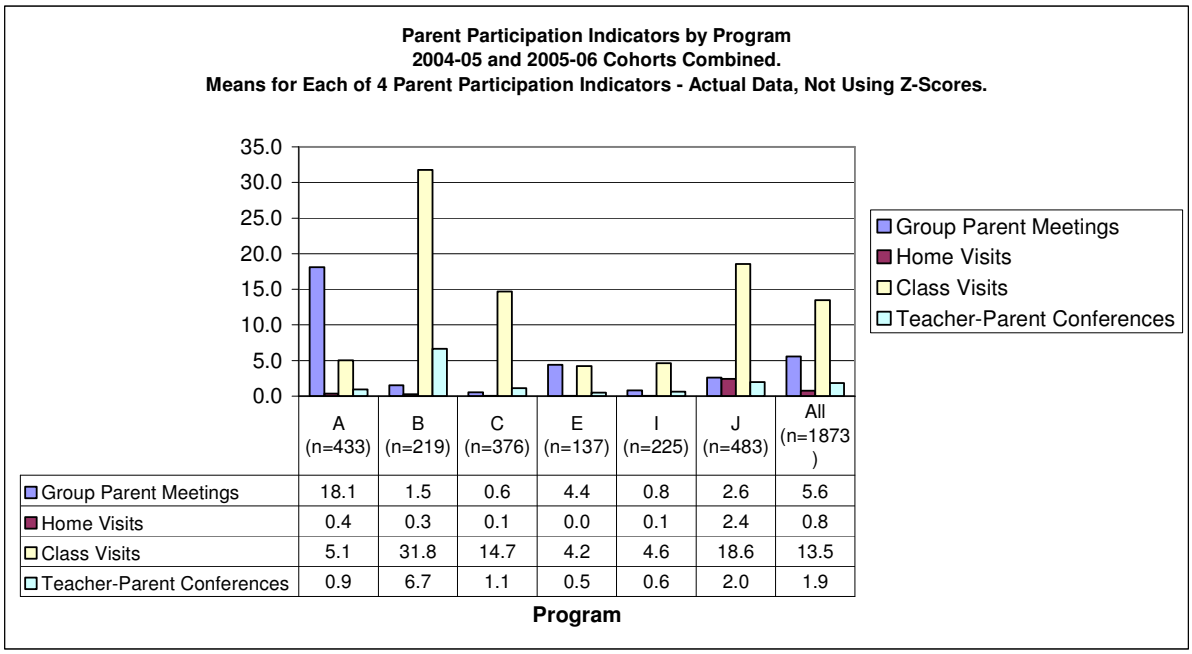


Figure VIII-6 below shows the mean values of the actual data used in these analyses. This graph shows the raw data, not z-scores. It shows the great amount of variation between programs in the four parent involvement indicators. Parents of children in program A attend many parent group meetings, while those in program B had many class visitations.

Figure VIII-6 Parent involvement indicators by program for 2004-05 and 2005-06 cohorts combined.

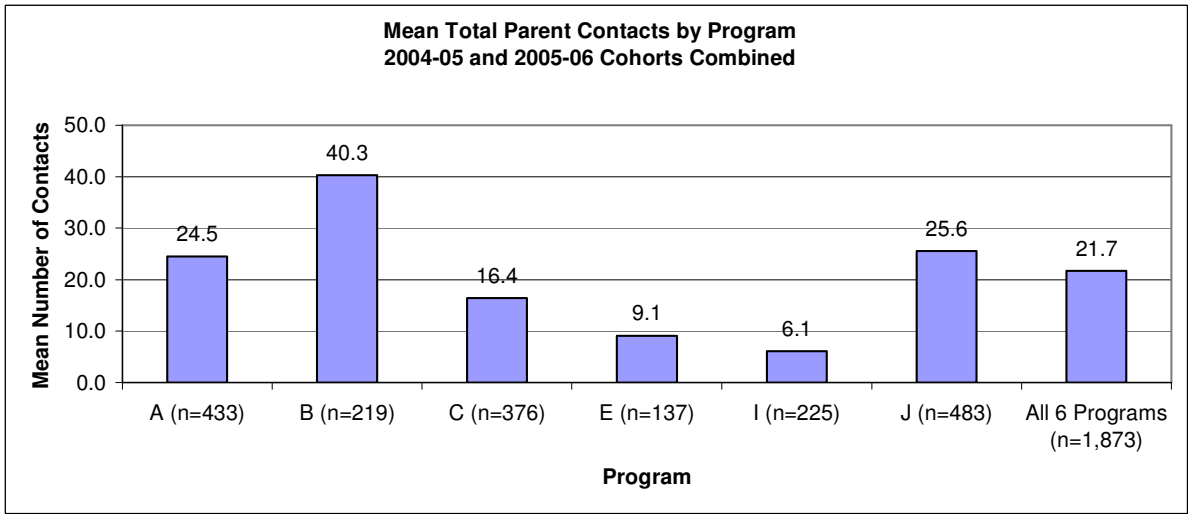


	A (n=433)	B (n=219)	C (n=376)	E (n=137)	I (n=225)	J (n=483)	All (n=1873)
Group Parent Meetings	18.1	1.5	0.6	4.4	0.8	2.6	5.6
Home Visits	0.4	0.3	0.1	0.0	0.1	2.4	0.8
Class Visits	5.1	31.8	14.7	4.2	4.6	18.6	13.5
Teacher-Parent Conferences	0.9	6.7	1.1	0.5	0.6	2.0	1.9

Section 1b. Additional Attendance Indicators of Interest

An additional measure of parent involvement was examined in this study, "total parent contacts," i.e. the total number of group parent meetings, home visits, class visits, and teacher-parent conferences, or simply the sum of all contacts. Figure VIII-7 below shows the mean total parent contacts displayed by program.

Figure VIII-7 Mean total parent contacts by program for 2004-05 and 2005-06 combined.



COR Outcomes

Section 2a Parent Involvement and Child COR Outcomes

The purpose of the following analyses was to detect any relationships between parent involvement types, programs, and children's outcomes as measured by the COR. Three separate Multiple Analysis of Covariance (MANCOVAs) were performed with each student's fall, spring, and change in COR scores (3 subscales for social, motor, and academic skills) as the dependent variables respectively. The main effect variables in the MANCOVA were each parent's involvement type (one of three types) and the program in which the student was enrolled (1 of 6 possible programs). Also, the 2-way interaction of parent involvement type and program was examined. The covariates used were gender, child's age, and 1 of 3 possible race/ethnicities: White, Black, or Hispanic. The "Other" race/ethnicity classification was not used, as it was small in number, and it is a non-homogeneous group. The MANCOVA using COR time 2 as dependent variables also used COR time 1 variables as a covariate. The results of these MANCOVAs are displayed in Table VIII-2 below.

This COR analysis includes only students with matching pre and post COR and T-CRS scores.

COR Time 1

The results of the parent involvement type main effect can be seen in Table VIII-2 below. In Table VIII-2 we can see that *the overall main effect of the parent involvement type was significant* (Wilks' Lambda= .984, $F(6,2240)=3.1$, $p<.05$) for the time 1 COR MANCOVA. COR scores for children at the beginning of the year were different depending, at least partially, on parent involvement type. More specifically, looking at the contrasts in Table VIII-2, the "Individual Involvement" type of parent had children with significantly higher time 1 COR scores for all three subscales when compared to other parent involvement types.

COR Time 2

In Table VIII-2 we can see that the overall main effect of the parent involvement type was not significant (Wilks' Lambda= .995, $F(6,2232)=1.0$, $p>.05$) for the time 2 COR MANCOVA. Children's COR scores at the end of the year were similar, however, this particular time 2 COR analysis does not take growth into account.

COR Growth

This year, the parent involvement type was not related to the student's overall change in COR score (Wilks' Lambda= .992, $F(6,2238)=1.5$, $p>.05$). Interestingly, last year the effect of parent involvement type was found to be just slightly significant (Wilks' Lambda= .990, $F(6,2706)=2.3$, $p<.05$, where $p=.034$), but not so this year.

TableVIII-2 the parent involvement type main effect on COR scores.

Table VIII-2								
2005-06 RECAP Annual Report								
COR Results by Parent Involvement Types (Estimated marginal means are shown, adjusted for covariates program, gender, race/ethnicity, and child's age; time 2 data is also adjusted for time 1 scores.)								
Includes only students with both a fall and spring COR and T-CRS scores								
	Parent Involvement Type							
	Low (L)		**Group (G)**		**Individual (I)**			
Measure	**Mean**	**Std. Error**	**Mean**	**Std. Error**	**Mean**	**Std. Error**	**F Value**	**Contrasts: Comparing Means**
COR time 1 MANCOVA							3.1*	
Social	2.72	.03	2.57	.05	3.02	.14	6.0*	I > L,G L>G
Motor	2.68	.03	2.57	.05	2.97	.14	4.3*	I > L,G
Academic	2.29	.03	2.24	.05	2.71	.13	5.7*	I > L,G
COR time 2 MANCOVA							1.0	
Social	3.69	.03	3.79	.04	3.81	.12	2.2	
Motor	3.68	.03	3.73	.05	3.74	.13	0.5	
Academic	3.28	.03	3.38	.05	3.42	.13	2.1	
Growth MANCOVA							1.5	
Social	1.01	.03	1.17	.05	1.06	.13	4.3[1]	
Motor	1.05	.03	1.13	.05	1.01	.14	1.1	
Academic	1.03	.03	1.11	.05	1.04	.13	1.3	
N	631		317		197			

Notes

*** Effects significant at p<.05.**

[1] As a general rule, if the multivariate F value is not significant, then the univariate F values are not considered significant.

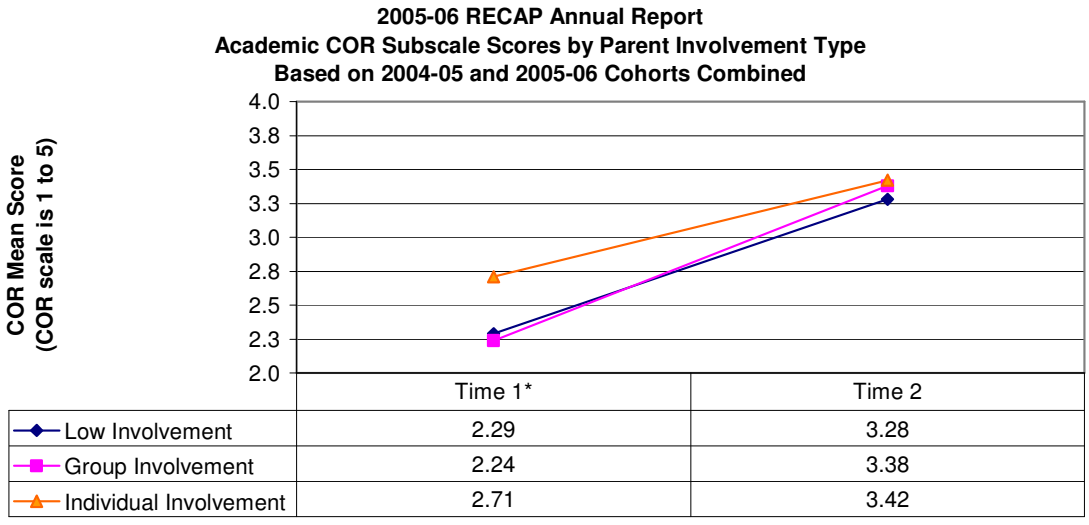
Overall

As can be seen in Table VIII-2 above, there was a small difference in COR skills for children with parents who differed among types of parent involvement at the beginning of the year. However, by the spring, or when measuring growth from the beginning to end of year, there were no differences linked to parent involvement types. It appears pre-k experience homogenizes student outcomes, at least in Rochester.

Figure VIII-8 through VIII-10 show the fall and spring mean COR scores for each of the 3 parent involvement types, for each of 3 subscales. Figures VIII-8 and VIII-9, which show social and motor skills respectively, can be found in the separate **RECAP 2005-06 Annual Report Statistical Supplement**. In Figure VIII-10 below, we can see the differences by parent involvement type at time 1 for the academic skill area. We can also see in Figure VIII-10 that the children with parents of the individual involvement type had higher scores. However, all 3 charts also show that at time 2 there is little difference by involvement type.

Looking at Figure VIII-10 below, we can see that the "Individual Involvement" type of parent had children with a mean academic score of 0.42 higher than "Low Involvement" parents at time 1. However, at time 2, the difference was only 0.14. The time1, time 2, and changes seen in Figures VIII-8 through VIII-10 are based on estimated marginal means from each of the MANCOVAs described earlier.

Figure VIII-10 Parent involvement type and the COR academic subscale scores.



	Time 1*	Time 2
Low Involvement	2.29	3.28
Group Involvement	2.24	3.38
Individual Involvement	2.71	3.42

For low type n=631, for group type n=317, for individual type n=197
Note: * Signifies differences of group means significant at Pr(t) <= .05

Section 2b Programs and Child COR Outcomes

Although the main focus of this section is parent involvement, it is interesting to observe the variability in child outcomes among programs. Tables XIII-3 through XIII-5 in the statistical supplement show the mean COR scores by program which resulted from similar MANCOVAs described above for the parent involvement type main effect. These tables display the estimated marginal means by program. In other words, these are means that are adjusted for the covariates used in the MANCOVA, the involvement type main effect, and the parent involvement type by program interaction. Figures VIII-11 through VIII-13, also in the statistical supplement, graphically show the variation in COR scores by program, after the other main effects and covariates have been controlled for at time 1, time 2, and for changes.

Most of the results from the COR child outcomes by program analyses can be found in Appendix VIII of the **RECAP 2005-06 Annual Report Statistical Supplement.** These results are included in Tables XIII-3 through XIII-5 and Figures VIII-11 through VIII-13 all in the supplement.

COR Changes

Table VIII-5 and Figure VIII-13, found in the supplement, show the variation in COR growth scores by program, after the other main effects and covariates have been controlled for. From Table VIII-5 in the supplement, we can see that the effect of the program on the change in COR was found to be significant (Wilks' Lambda= .927, $F(20,3089)=5.8$ $p<.05$). Programs differed in their changes in COR results from beginning to end of year. Students in program A had considerably greater changes in COR scores compared to other programs. Figure III-13 in the supplement graphically shows the variation in COR change scores by program, after the other main effects and covariates have been controlled for.

Overall

There was a difference in COR skills for children among programs both at the beginning of the year and in the spring. Also, when measuring growth from the beginning to end of year, there were also differences linked to programs.

Section 2c Parent Involvement by Program Effects

Children's COR results were sometimes different based on the Parent Involvement by Program Interactions. I.e. for certain programs the parent involvement type resulted in different children's outcomes. Section 2c of this report can be found in Appendix VIII in the **RECAP 2005-06 Annual Report Statistical Supplement**.

T-CRS Outcomes

Section 3a Parent Involvement and Child T-CRS Outcomes

The purpose of the following analyses was to detect any relationships between parent involvement types, programs, and children's outcomes as measured by the T-CRS. Just as for the COR analyses, three separate Multiple Analysis of Covariance (MANCOVAs) were performed with each student's fall, spring, and growth in T-CRS scores as the dependent variables respectively. The main effect variables in the MANCOVA were each parent's parent involvement type (one of three types) and the program in which the student was enrolled (1 of 6 possible programs).

The MANCOVA using T-CRS time 2 as dependent variables also used COR time 1 variables as a covariate. The other covariates used were gender, child's age, and 1 of 3 possible race/ethnicities: White, Black, or Hispanic. The "Other" race/ethnicity classification was not used, as it was small in number, and it is a non-homogeneous group. The results of these 3 MANCOVAs are displayed in Table VIII-7 in the **RECAP 2005-06 Annual Report Statistical Supplement**.

Please note that this T-CRS analysis includes only students with matching pre and post COR and T-CRS scores.

T-CRS Time 1

The results of the parent involvement type main effect on T-CRS can be seen in Table VIII-7 in the statistical supplement. The overall *main effect of the parent involvement type was found to be significant* (Wilks' Lambda= .984, $F(8,2238)=2.21$, $p<.05$) for the time 1 T-CRS MANCOVA.

T-CRS Time 2

The results of the parent involvement type main effect on T-CRS can be seen in Table VIII-7 in the statistical supplement. The overall main effect of the parent involvement type was found to be not significant (Wilks' Lambda= .987, $F(8,2232)=1.86$, $p>.05$) for the time 2 T-CRS MANCOVA.

T-CRS Growth

The effect of the parent involvement type and the change in T-CRS was found to be not significant (Wilks' Lambda= .994, $F(8,2238)=0.82$, $p>.05$.

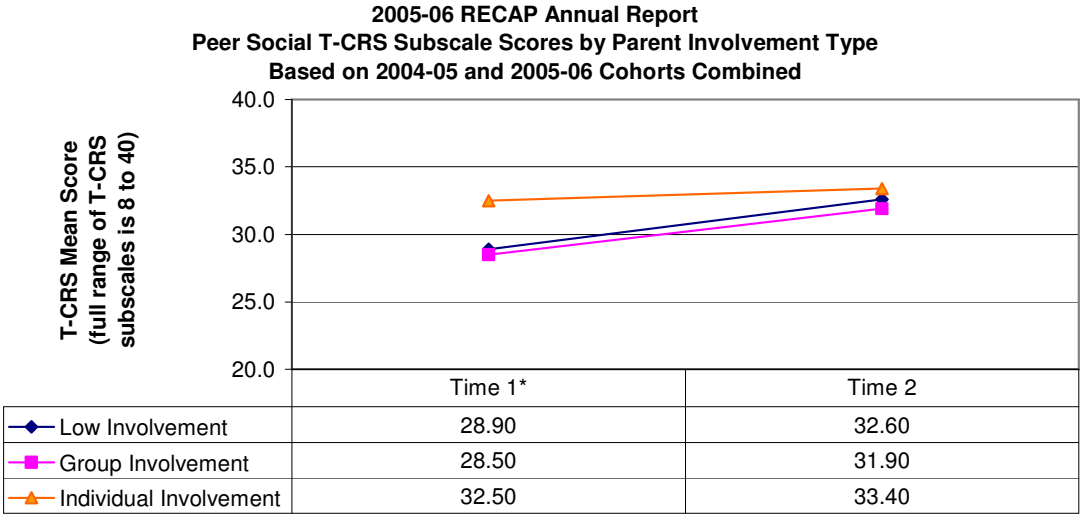
Overall

There was a small difference in behavioral functioning (T-CRS scores) among children with parents that differed among types of parent involvement at the beginning of the year. However, when observing scores at the end of the year, or when considering beginning to end of year growth, there were no differences.

Figure VIII-23 through VIII-26 show for each of the four T-CRS subscales the fall and spring mean scores for the 3 parent involvement types. Figures VIII-24 through VIII-26 can be found in the **RECAP 2005-06 Annual Report Statistical Supplement**. Figure VIII-23 appears below in this document. In all of these graphs, we can see that there were differences by parent involvement type at time 1 for all four skill areas. We can also see that the children with parents of the individual involvement type had higher scores. However, all 4 charts also show that at time 2 there is little difference by involvement type.

Looking at Figure VIII-23 below, we can see that the mean peer social score difference at time1 between the 'Individual Involvement" type of parent and the "Low Involvement" type was 3.60. However, at time 2 the difference was only 0.80. The time 1 and time 2 scores seen in Figures VIII-23 through VIII-26 are based on estimated marginal means from each of the T-CRS MANCOVAs described earlier.

Figure VIII-23 Parents involvement type and their children's T-CRS peer social subscale scores.



	Time 1*	Time 2
Low Involvement	28.90	32.60
Group Involvement	28.50	31.90
Individual Involvement	32.50	33.40

For low type n=631, for group type n=317, for individual type n=197
Note: * Signifies differences of group means significant at Pr(t) <= .05

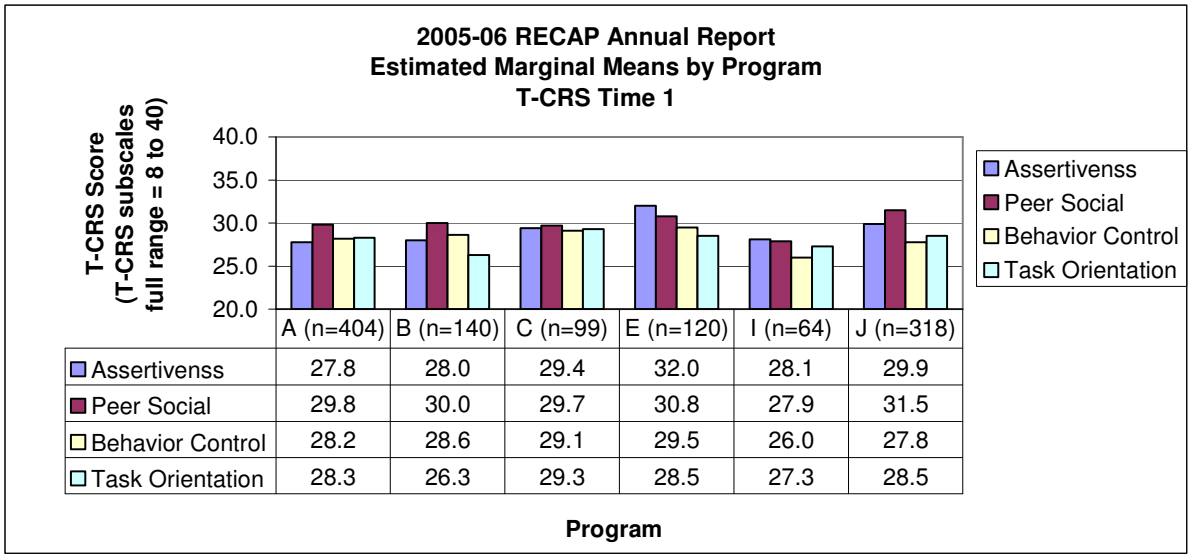
Section 3b Programs and Child T-CRS Outcomes

As mentioned previously, the main focus of this section is on parent involvement; however it is additionally interesting to observe the variability in child outcomes among programs. Table VIII-8 in the statistical supplement shows the mean T-CRS scores by program which resulted from the MANCOVAs described above. The means displayed are the estimated marginal means by program. In other words, these are means that are adjusted for the covariates used in the MANCOVA, the involvement type main effect, and the parent involvement type by program interaction.

T-CRS Time 1

Table VIII-8 in the statistical supplement and Figure VIII-27 below show the variation in T-CRS time 1 scores by program, after the other main effects and covariates have been controlled for. We can see that the main effect of the program was found to be significant (Wilks' Lambda= .937, $F(20,3712)=3.7$, $p<.05$) for the time 1 T-CRS MANCOVA. Programs differed in their T-CRS results at the beginning of the year for all subscales except Behavior Control.

Figure VIII-27 Marginal means by program T-CRS time 1.



	A (n=404)	B (n=140)	C (n=99)	E (n=120)	I (n=64)	J (n=318)
Assertivenss	27.8	28.0	29.4	32.0	28.1	29.9
Peer Social	29.8	30.0	29.7	30.8	27.9	31.5
Behavior Control	28.2	28.6	29.1	29.5	26.0	27.8
Task Orientation	28.3	26.3	29.3	28.5	27.3	28.5

T-CRS Time 2

Table VIII-9 and Figure VIII-28 found in Appendix VIII of the **RECAP 2005-06 Annual Report Statistical Supplement** show the variation in T-CRS time 2 scores by program, after the other main effects and covariates have been controlled for. From Table VIII-9 we can see that the effect of the program effect was also found to be significant (Wilks' Lambda= .928, $F(20,4137)=4.2$, $p<.05$) for the time 2 T-CRS MANCOVA. Programs differed in their T-CRS

results at the end of the year in all T-CRS subscales. The students in program A had the highest time 2 T-CRS scores compared to other programs.

T-CRS Changes

Table VIII-10 and Figure VIII-29 found in Appendix VIII of the **RECAP 2005-06 Annual Report Statistical Supplement** show the variation in T-CRS growth scores by program, after the other main effects and covariates have been controlled for. From Table VIII-10 we can see that the effect of the program on the change in T-CRS was also found to be significant (Wilks' Lambda= .931, $F(20,3712)=4.0$, $p<.05$. Programs differed in their changes in T-CRS results from beginning to end of year in all subscales. Children in program A have more growth than children in the other programs, in all skill areas.

Overall

There was a difference in T-CRS skills for children among programs both at the beginning of the year and in the spring. Also, when measuring growth from the beginning to end of year, there were also differences linked to programs.

Section 3c Parent Involvement by Program Effects

Children's T-CRS results were sometimes different based on the Parent Involvement by Program Interactions. For certain programs, the parent involvement type resulted in different children's outcomes. Section 3c of this report can be found in Appendix VIII in the **RECAP 2005-06 Annual Report Statistical Supplement**.

Description of RECAP

IX. Description of RECAP

Introduction

The Rochester Early Childhood Assessment Partnership (RECAP) was started in Rochester, New York in 1992 to address the growing need for understanding and improving the effectiveness of prekindergarten programs.

Today, with the support of childcare providers, local government, foundations and schools, RECAP has become responsible for the assessment of approximately two-thirds of Rochester's 4-year-olds, including its New York State Universal Prekindergarten program, and about one-quarter of Rochester's 3-year-olds.

RECAP provides an integrated process for ensuring that early childhood programs have the information they need for making informed decisions that can be used to improve program practices and outcomes.

RECAP provides useful data analysis on the status of our early childhood programs including:

1) Parent satisfaction and parent interest in child development, programs, agencies, and support services
2) Classroom observations of adult and child interaction, program function, and environment
3) Child-specific information on motor development, speech and language development, school skills, and socio-emotional adjustment

Confidentiality of all participants is maintained in all areas and is of the utmost importance to our partnership. This year RECAP assessed 2,531 children in 156 classrooms.

What early childhood providers participated in RECAP?

- Action for a Better Community, Inc. Head Start
- Charles Settlement House
- Diocese of Rochester Catholic Schools in the City of Rochester
- Early Childhood Education Quality Council Centers
- Family Resource Centers of Crestwood Children's Center
- Monroe Community College Childcare Center
- Rochester Childfirst Network Family Child Care Satellites of Greater Rochester
- Rochester City School District Florence S. Brown Pre-School Program
- Rochester City School District Early Childhood and Elementary Schools

- Rochester City School District Rochester Preschool-Parent Program (RPPP)
- YMCA of Greater Rochester Child Care Centers

Measure Distribution and Collection

RECAP operates throughout the school year. The partnership collects information, analyzes it, and disseminates it widely so parents, providers and policymakers can make informed decisions.

Three times during the year (fall, winter, and spring), Children's Institute staff members prepare packets of measures and distribute them to program locations for teachers and parents to complete. Also included in packets are detailed instruction sheets, timelines, and identification numbers for each child, sample letters, and schedules of upcoming meetings, training, and orientations.

Teachers complete the Teacher-Child Rating Scale and Child Observation Record and parents complete the Parent Child Rating Scale, the Preschool Parent Support Questionnaire, and the Parent Questionnaire in fall and spring. The Early Childhood Parent (Satisfaction) Survey is distributed to obtain parent feedback about the programs in February.

Programs return completed measures to Children's Institute for processing. The measures are checked for accuracy and the data are entered. Individualized reports for each child and classroom are processed and returned to programs along with the original instruments within 7 to 10 days. Reports include individual child and group profiles of outcomes and parent feedback summaries. Reports may be used immediately by program staff members to identify strengths, needs, and to set goals for program, children, and families. Children's Institute staff members support program partners with interpretation of reports in individualized and small group meetings.

Partner Development

Training and support is provided to directors, teachers, and parent support staff members on appropriate use of all measures used in the partnership. Specific descriptions of each segment are noted below.

Orientation Sessions

The RECAP orientation sessions provide history and background on the partnership, an overview of the entire RECAP process, and training on use of its components. Partners gain perspective on the entire partnership and how this community-wide operation fits with their individual program. This forum also provides opportunity for early childhood program partners to link with each other.

The project coordinator meets frequently at program sites with teachers and directors. This personalized option was suggested during early focus groups and is preferred by most program staff members. These meetings complement information obtained at group orientations and are individualized to meet unique program needs.

COR Training

Teachers participate in training to learn appropriate use of the Child Observation Record (COR) before they begin the formal child observation process. A three-hour session includes COR components, child observation techniques, and hands on training to learn documenting and scoring methods.

Reports Interpretation Workshop

An integral component of the assessment is for partners to utilize the data to make informed decisions about their early childhood program practices. Individual and group sessions are provided to assist teachers, directors, and parent support staff members with the interpretation of individual or group profile reports, as well as classroom quality profiles.

Introductory ECERS-R Training

Program staff members and providers are introduced to the ECERS-R in a three-hour training session. Participants learn observation and scoring techniques, and the benefits of using the ECERS-R in program assessment and quality improvement processes. They also review the logistics of the classroom/program observation.

Master Observer Training

Master observers are selected on the basis of their experience in early childhood education, program observation, and interest to participate. Training includes a 15 hour program in the first year of involvement of a Master Observer. For observers beginning a second year and in all subsequent years, an additional four to 12 hours of training is required. In-depth training for refinement of observation skills, inter-rater reliability standards, logistics of the observation process, observation guidelines, and protocol are covered in depth. Master observers are trained to attain and maintain a high level of inter-rater reliability. This year,

five new Master Observers were trained in the ECERS-R and seven new Master Observers were trained in the FDCRS.

Training and Consultation Summary

- 10 program staff members participated in orientation activities.
- 54 prekindergarten teachers were trained in the COR.
- 14 program staff members were trained in the ECERS-R.
- 10 new ECERS-R master observers were trained.
- 25 ECERS-R master observers participated in refresher training.
- 49 program staff members attended reports interpretation workshops or individual sessions.
- 34 program staff members and partners attended 2004-05 Annual Report Findings presentations.
- 5 new FDCRS master observers were trained this year.

Classroom/Program Observation Process

The observation process takes place over four months. Training for providers, teachers and directors is in January. Observations take place in February, March, and April.

In brief, the observation process is as follows:

- An observer contacts the classroom teacher/provider to schedule the observation date
- Program observation occurs (3 to 6 hours)
- Observer conducts an 30-45 minute interview with the teacher/provider immediately after the observation to obtain information not evident during observation
- Observer completes the score sheet and submits it to Children's Institute for processing
- Project coordinator reviews the score sheet for accuracy
- Score sheet is checked again for accuracy by a data clerk, the information is entered into the database and a summary report is produced
- Copy of original score sheet and summary report is mailed directly to teacher/provider
- Teacher/provider reviews information
- If teacher/provider disagrees with any item(s) in the report and wants to address this, she/he requests a collaborative review process (outlined below)

Collaborative Review Request Procedure

1) After an observation is complete, the independent observer returns the completed score sheet to Children's Institute for processing. A copy of the score sheet and summary report is returned directly to the teacher/provider along with a cover letter that serves as a guide in their review of the report. In this letter is an invitation to contact the project coordinator if she/he feels a score does not an accurately represent the program.

2) If a teacher/provider questions any item(s) and wishes to formally address this, she/he contacts the project coordinator to obtain a Collaborative Review Request Form within which, she/he outlines the details of the item(s) in question with additional supporting information.

3) Upon receipt of the Collaborative Review Request, the project coordinator reviews the information provided by the teacher/provider, consults the independent observer who completed the observation, and conducts a detailed re-examination of each quality indicator score. After consideration from these references, a determination is made whether any items may be scored differently.

4) In a detailed letter to the teacher/provider, the project coordinator formally addresses each questioned item and whether the item(s) score is changed. A revised copy of the score sheet is returned with any applicable adjusted scores as well as a new summary report.

5) The revised scores are entered into the database.

6) If the teacher/provider informs us that she/he remains dissatisfied with the results of the process thus far, we will make arrangements for a second independent observer to conduct a second complete observation and submit a formal report.

Table IX-1 Summary of ECERS-R Collaborative Review Requests					
Summary of Results	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**
Number of reviews	24 out of 117	18 out of 130	23 out of 137	16 out of 128	15 out of 128
Percent	21%	14%	17%	13%	12%
Total number of items reviewed	140	71	152	129	86
Total number of items changed	76	28	69	60	49
Average change in overall score	0.2	0.1	0.2	0.2	0.2
Range of changes in overall score	0.0 - 0.5	0.0 - 0.4	0.0 - 0.9	0.0 - 0.8	0.0 - 0.4

Table IX-2 Summary of FDCRS Collaborative Review Requests		
	2004-05	**2005-06**
Number of reviews	4 out of 54	2 out of 22
Percent	7%	9%
Total number of items reviewed	30	12
Total number of items changed	5	8
Average change in overall score	0.1	0.2
Range of changes in overall score	0.0 - 0.2	0.1 - 0.3

Community-wide response to RECAP findings

Rochester's early education community relies on RECAP annual data for use in program planning, community strategic planning, and effective decision-making in support of our community's young children, their families and programs. The assessment has become "part of the culture" in that it has become an expectation that its information is used as part of the overall processes in the majority of Rochester's early education programs. Practitioners have grown accustomed to using quality indicators as a method for setting up programs and acquiring resources to achieve and sustain quality.

During 2005-06, a number of activities took place throughout the early education community in response to findings in the RECAP 2004-05 Report. The RECAP Policy Group and Assessment Team developed action plans based on areas in the report that identified needs. Additionally, many community members and RECAP partners worked toward improvements and necessary initiatives as well as areas for further research and evaluation. These are described briefly below.

Two-year decrease in overall program quality as measured by ECERS-R

- A committee was formed to explore possible reasons for the two-year decline in program quality. The committee included several individuals with various early education and research/evaluation backgrounds. The committee helped program partners understand and use ECERS-R report feedback within program improvement activities during 2005-06. Results of community-wide efforts in response to the quality decline were anticipated in the 2005-06 ECERS-R outcomes (contained in this report) to help determine next steps for 2006-07.

- A detailed report illustrating ECERS-R area and item scores from 2002-03 through 2004-05 was developed and distributed to program directors. The report contained aggregate information for all RECAP programs combined as well as confidentially maintained individual program reports. These reports were used to identify areas needing most improvement efforts and in which to focus resources and professional development. Programs using this detailed report ranged in size from smaller independent programs to large system-wide programs.

- RECAP Project Coordinator met with 13 programs (directors and teachers) with impact on 55 classrooms to review their program-specific reports and to assist their understanding of the quality indicators and scoring indices of the ECERS-R. The goal was to help program staff members more effectively use ECERS-R feedback information to identify strengths, needs for program quality improvement and *how* to improve as prescribed and measured by the ECERS-R.

Rochester's Child Provider Grants

- For the past several years, Rochester's Child Fund of the Rochester Area Community Foundation has provided resources to RECAP program providers for identified program improvements based on their assessment information. In 2005-06 funds were awarded to 26 program teachers and directors who completed a short application stating their program goals, needs for improvement, and how they will measure program improvement within ECERS-R quality score increases.

- This community resource directly supports program improvement for providers who may not have the ability to pay for materials to enrich their programs. Providers are able to efficiently identify areas for improvement via ECERS-R scores and, with Rochester's Child support, have resources to make those improvements.

Gender differences in child outcomes

- The Gender Gap Committee was formed and met several times throughout 2005-06. The committee includes 10 individuals with a variety of education, evaluation, and research expertise. Its charge was to more closely examine variables regarding the findings in all levels of education, as well as in RECAP outcomes, that boys are not performing as well as girls.

- Further research and additional analyses of RECAP data is ongoing. RECAP 2005-06 findings are expected to assist the committee in evaluating its current activities and

most effectively moving forward in support of boys' success in early childhood education. An 18 month strategic plan is in development. See Section X for some of the Gender Gap analysis.

Dental Health Committee

- A high percentage of prekindergarten students have never visited a dentist. As reported in the 2004-05 report, 31% never visited a dentist; 38% in 2003-04.
- A committee was formed to explore community resources and how to make dental care more accessible to our city's young children.
- A meeting including representatives of the RECAP Policy Group and Eastman Dental took place. This was a very positive step toward possible collaborative efforts to promote dental health. The discussion included parent education, provider capacity, payment resources for parents and providers, the larger demand for prekindergarten dental care, and the already existing SMILE Mobile. Action items include eliciting funder and community activity, addressing the need for a comprehensive survey, and identifying the children most in need of dental care.

Statistical History of RECAP

Figure IX-1 and IX-2 below display the number of children and classes that RECAP has assessed and supported over the last 7 years.

Figure IX-1 Seven year history of the number of children assessed and supported by RECAP.

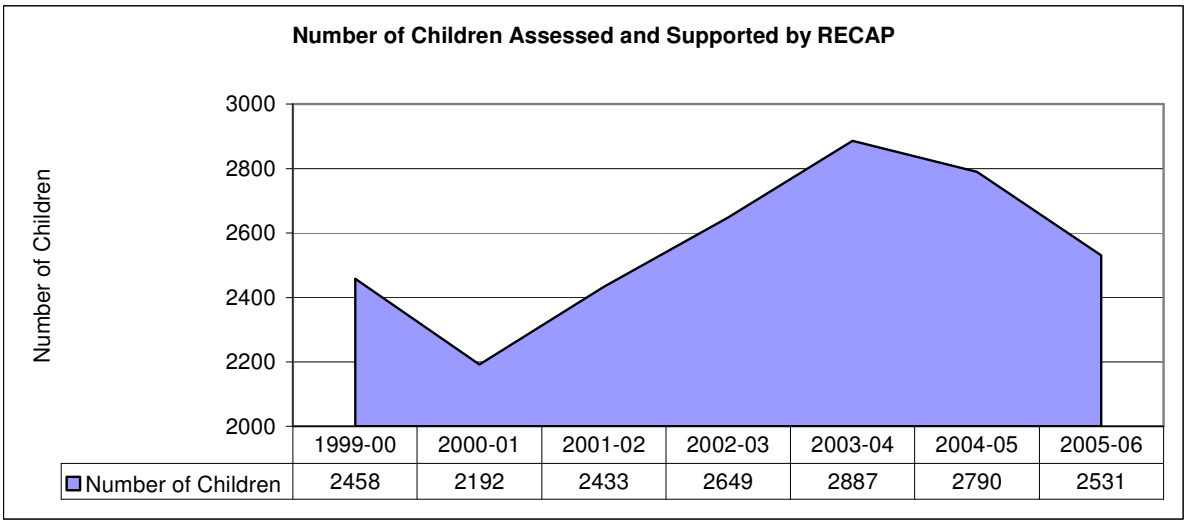


Figure IX-2 Seven year history of the number of classes assessed and supported by RECAP.

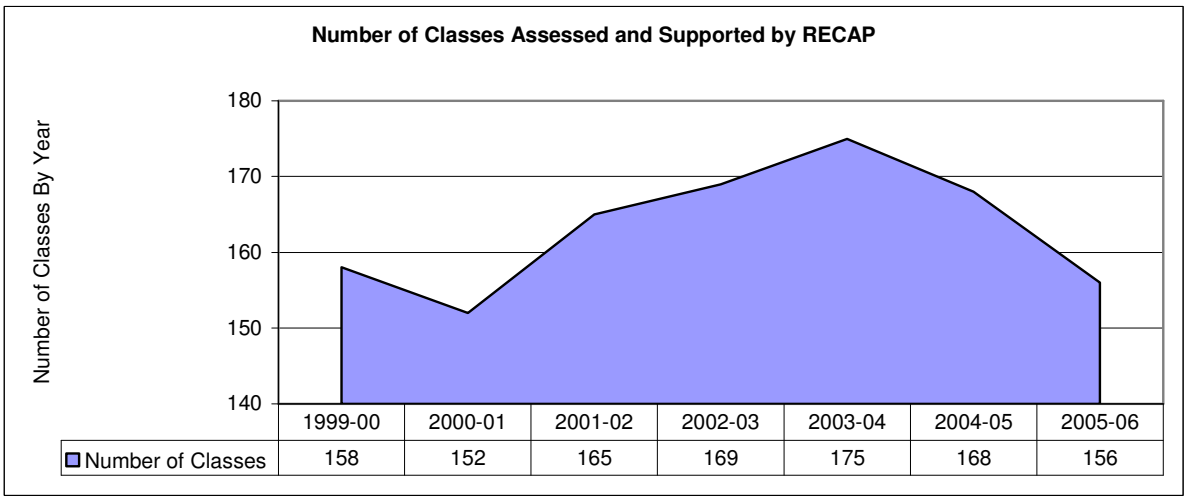


Table IX-3 below shows the age breakdown of RECAP students. Age is calculated as of December 1 of the fall semester.

Table IX-3 Demographics for RECAP children.

Table IX-3				
Demographic Information for Children in RECAP Classes for the Last 2 Years				
	2004-05		**2005-06**	
Age	**Frequency**	**Percent**	**Frequency**	**Percent**
2	19	0.7%	20	0.8%
3	650	24.0	595	23.9
4	2022	74.8	1855	74.7
5	13	0.5	15	0.6
6	1	0.0	0	0.0
Total	2705	100.0	2485	100.0
Missing	85		46	
Race/Ethnicity	**Frequency**	**Percent**	**Frequency**	**Percent**
White	400	16.1	340	13.9%
Black	1508	60.8	1505	61.7
Native American	5	0.2	1	0.0
Asian	37	1.5	37	1.5
Hispanic	409	16.5	469	19.2
Other	122	4.9	87	3.6
Total	2481	100.0	2439	100.0
Missing	309		92	
Gender	**Frequency**	**Percent**	**Frequency**	**Percent**
Male	1347	48.3%	1284	50.7%
Female	1443	51.7	1247	49.3
Total	2790	100.0	2531	100.0
Missing	0		0	

X. Gender Gap Data Analysis (New Analysis)

Purpose

It has been very noticeable that pre-k boys have generally not been performing as well as girls in RECAP classrooms in recent years. The purpose of this analysis was to identify and document more precisely in which RECAP measures this phenomenon is occurring.

Analysis

Stepwise discriminant function analysis was used to determine which RECAP measure variables best discriminate between male and female students. In stepwise discriminant function analysis, a model of discrimination is built step-by-step. Specifically, at each step all variables are reviewed and evaluated to determine which one will contribute most to the discrimination between groups.

Specifically, in an effort to investigate which set of RECAP variables best discriminate between boys and girls, we tested most of the variables for five of the RECAP measures. We did this systematically, first trying all of the variables in each measure, one measure at a time, and then combining measures together.

When combining measures we organized all of the teacher observation measures together and then also all of the parent measures as a group. All measures, both for teachers and parents were also combined and analyzed.

Most of the items in the following RECAP measures were tested with discriminant analysis:

a) Child Observation Record (COR)
b) Teacher-Child Rating Scale (T-CRS)
c) Parent-Child Rating Scale (P-CRS)
d) Parent Questionnaire (PQ), and the
e) Children's Health Information (CHI 2.0)

Results Highlights

Based on the Discriminant Analysis of RECAP measures, for both 2003-04 and 2004-05, the following variables were found to best classify boys and girls:

- T-CRS task orientation and behavior control (as rated by the teacher) differences were consistently seen, with girls having higher scores.
- P-CRS task orientation (as rated by the parent) had generally higher scores for girls compared to boys.
- COR motor skills, especially in the spring were stronger for girls. There were consistent boy-girl differences in drawing & painting, and generally in moving with objects (body coordination).
- Some race/ethnicity differences were observed. When testing the COR & T-CRS measures together, Black students showed the largest boy-girl differences in T-CRS Task Orientation, while White students showed the greatest differences in T-CRS behavior control.
- From the CHI data, we can see that boys had more behavior problems compared to girls.
- Regarding teaching experience, teachers with less than 3 years of lifetime teaching experience were found to have similar gender differences in their classrooms as teachers with >6 years of lifetime teaching experience (we found the same result when testing with number of years of RECAP teaching experience).
- Classroom gender differences appeared to be similar across agencies and school locations. The agency and school effects were not formally tested; this conclusion was based on informal observation of the data.

The detailed results of this analysis can seen in Tables X-1 through X-9 and Figures X-1 through X-4 in Appendix X in the RECAP 2005-06 Annual Report Statistical Supplement.

Presentations and Publications
2005-06
Rochester Early Childhood Assessment Partnership

Hightower, A. D., MacGowan, A., Brugger, L.S., Gramiak, W. (October 2005). *Rochester Early Childhood Assessment Partnership: An assessment system for early education*. New York State School Boards Association Annual Conference, Rochester, NY.

Hightower, A.D., MacGowan, A., Berent, R. (October 2005). *What Makes a Successful Community Evaluation? A Study of the Rochester Early Childhood Assessment Partnership.* American Evaluation Association, Canadian Evaluation Society Annual Conference. Toronto, Ontario, Canada.

Gramiak, W., Hightower, A.D., Berent, R. (October 2005). *Understanding Outcomes by Crossing Boundaries: Triangulation, Partnerships, and Longitudinal Analyses.* American Evaluation Association, Canadian Evaluation Society Annual Conference. Toronto, Ontario, Canada.

Brugger, L.S., Berent, R. (October 2005). *Use of the Early Childhood Environment Rating Scale-Revised (ECERS-R) in a Preschool Community Assessment Partnership - A Continuous Improvement Process.* American Evaluation Association, Canadian Evaluation Society Annual Conference. Toronto, Ontario, Canada.

Berent, R., Karp, E., Baker, A. (October 2005). *Building a Community of Learners through Program Evaluation.* American Evaluation Association, Canadian Evaluation Society Annual Conference. Toronto, Ontario, Canada.

Hightower, A. D., MacGowan, Brugger, L.S & Gramiak, W. (March 2006). *Early childhood programs and efforts in the greater Rochester area.* United Way of Greater Rochester, Rochester, NY.

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RECAP 2005-06 Annual Report Statistical Supplement

A separate RECAP report has been prepared which contains the detailed information that has formerly been included in Appendices A through D of the main RECAP Annual Report.

Additional appendices are also included in this supplement which provides more detail on many of the topics that are introduced in the main RECAP report. **Please note that for the appendices with Roman numerals, the numerals match the section numbers in the main report from where these appendices are referenced.**

The title of the supplement is: "**RECAP 2005-06 Annual Report Statistical Supplement**" and the report number is T06-004 and can be accessed on the Children's Institute web site on: www.childrensinstitute.net.

This supplement report includes:

Appendix	**Topic**
A	ECERS-R
B	ECPS/Satisfaction
C	ECERS-R for UPK
D	ECPS/Satisfaction for UPK
I	ECERS-R Additional Results
III	Preschool Parent Support Questionnaire (PPSQ)
V	Follow-up Study Secondary RECAP Related Effects
VI	Pre-K Children with Disabilities
VII	Children's Health Information (CHI 2.0)
VIII	Parent Involvement and Child Outcomes
X	Gender Gap Data Analysis
XI	Reliability Statistics for RECAP Measures

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Reader Feedback Form

Rochester Early Childhood Assessment Partnership – RECAP
2005-06 Ninth Annual Report
Feedback Form

We want to hear from you.

- Do you have input about the report?
- What thoughts do you have about the findings in the report?
- Do you have any questions you would like to be considered for further analysis?

Name_____

Write your comments or questions here. Thank you for contributing to our process.

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Mail this form to:

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