The logo for Children's Institute is located in the top left corner, featuring the text "children's institute" in a white serif font on a dark blue background. Below the logo is a decorative graphic consisting of a vertical yellow bar on the left and a series of small, light green dots that form a curved path across the top and bottom of the page. The dots start at the top left, curve across the top, and then curve back down to the bottom right.

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STRENGTHENING SOCIAL AND
EMOTIONAL HEALTH

Rochester Early Childhood Assessment Partnership 2012-2013 Sixteenth Annual Report

Statistical Supplement

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A. DIRK HIGHTOWER, PH.D.
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Appendix A: Description of RECAP and Measures Used

Introduction to RECAP

RECAP began in 1992 as a collaboration of the United Way of New York State, the Rochester Area Community Foundation, the Rochester City School District, the Center for Governmental Research (CGR), Action for a Better Community (ABC), and Children's Institute. Since its inception, one of RECAP's guiding tenets has been to continuously promote, ensure, and improve the quality of pre-k classroom experiences through the use of an integrated and comprehensive information system. In addition to providing information to enhance children's, teachers', and systems' performance, RECAP works to translate collected data into usable information for parents, providers, and policy makers. This has resulted in informed and targeted interventions for children, professional development activities for providers, and changes in policy by funders and governments. Throughout its history, RECAP has collaborated with many partners, including area foundations, local governments, public and parochial schools, Head Start programs, and early education teachers at multiple schools and community-based organizations.

Each year, RECAP provides important services – primarily to providers and policy makers – which include:

- ❖ Training teachers and program administrators in the use of child screening measures, assessments, and rating scales, and in the interpretation of these tools' results.
- ❖ Efficient and user-friendly data collection and feedback reports, with reports looped back to teachers and directors. Primarily this is accomplished using web-based COMET[®] system¹ reports, which provide instant feedback. Additionally, paper reports at the child, classroom, program, and system levels are provided.
- ❖ Training teachers and observers on fidelity implementation and quality indicators of the standards assessed with the Early Childhood Environment Rating Scale, Revised (ECERS-R) and the Classroom Assessment Scoring System (CLASS).
- ❖ Twice monthly review and planning meetings with community-based organizations, ABC Head Start, RCSD, and other early education community leaders and evaluators to analyze and synthesize available information, recommend changes, and monitor the systematic quality of early education in Rochester.
- ❖ Quarterly hosting of a Policy Advisory Group to facilitate support and direction from and to the community.
- ❖ Community presentations of RECAP results to stimulate understanding of where we are and where we could be heading in order to improve community outcomes for prekindergarten children.

¹ COMET[®] is a web-based data collection and management system initially created by Children's Institute, Inc. and SophiTEC, Inc for the early education community.

In sum, information-based decisions are integrated into a continuous improvement system that strives to ensure and maintain high quality pre-k classrooms and programs and improve students' overall performance and outcomes.

Consistently, RECAP has tried to employ the best available measures to assess program quality and student outcomes. Throughout RECAP's 21-year history, the ECERS (or its revised version, the ECERS-R) has been used to study classroom quality. Starting four years ago, the CLASS, a relatively new measure at that time, was piloted with random subsamples of RECAP classrooms. The pilot lasted from 2009 to 2012. Approximately 30 classrooms per year, 95 classrooms in all, were randomly selected to receive CLASS training and observations. During the pilot phase, analyses repeatedly showed that, while both measures assess classroom quality, the quality indicators assessed by CLASS and the ECERS-R are different. Therefore, for the 2012-2013 school year, all RECAP teachers were observed with the CLASS instrument as well as the ECERS-R. The results of this first year of full implementation of the CLASS in all 113 of RECAP's participating classrooms are reported in the **Program Quality - CLASS** section of this report.

To measure levels of students' competencies and needs within academic, motoric, and social/emotional domains, the Child Observation Record (COR), the Teacher-Child Rating Scale (T-CRS), and the Brigance Early Childhood Screen II (Brigance) were completed in the fall and again in the spring. In keeping with national trends and local needs with program quality assessments, the Brigance was used for the first time this year in RECAP. The introduction of the Brigance, which meets new state quality and assessment guidelines, to RECAP's battery of assessments allows for comparisons between the performance of Rochester's pre-k students and national samples. Children's attendance and parental participation were also recorded by school staff, primarily by teachers, each school day.

The level of parents' perceived involvement with multiple facets of their children's education was evaluated using the Family Involvement Questionnaire (FIQ). On the FIQ, parental involvement is assessed based on parents' reports of their time spent in their children's pre-k classroom, with their children's teacher, and working at home with their children. Additionally, parents were asked to provide their perspectives on their children's cognitive, social-emotional, and motor skill development using the Parent-Child Rating Scale (P-CRS). Both of these assessment tools were completed by parents at the beginning and at the end of the school year.

The following figures summarize the numbers of children and classrooms assessed during the 2012-2013 school year within the context of the numbers assessed in the history of RECAP over the last fourteen years.

Figure A-1. Fourteen Year History of the Number of Children Assessed and Supported by RECAP

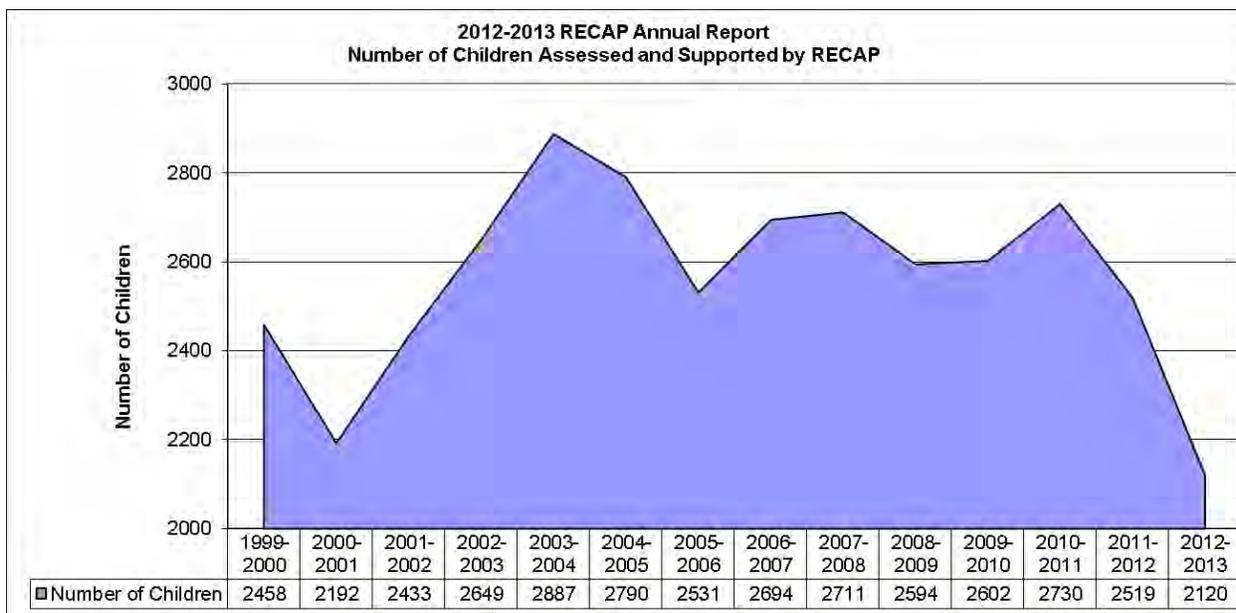
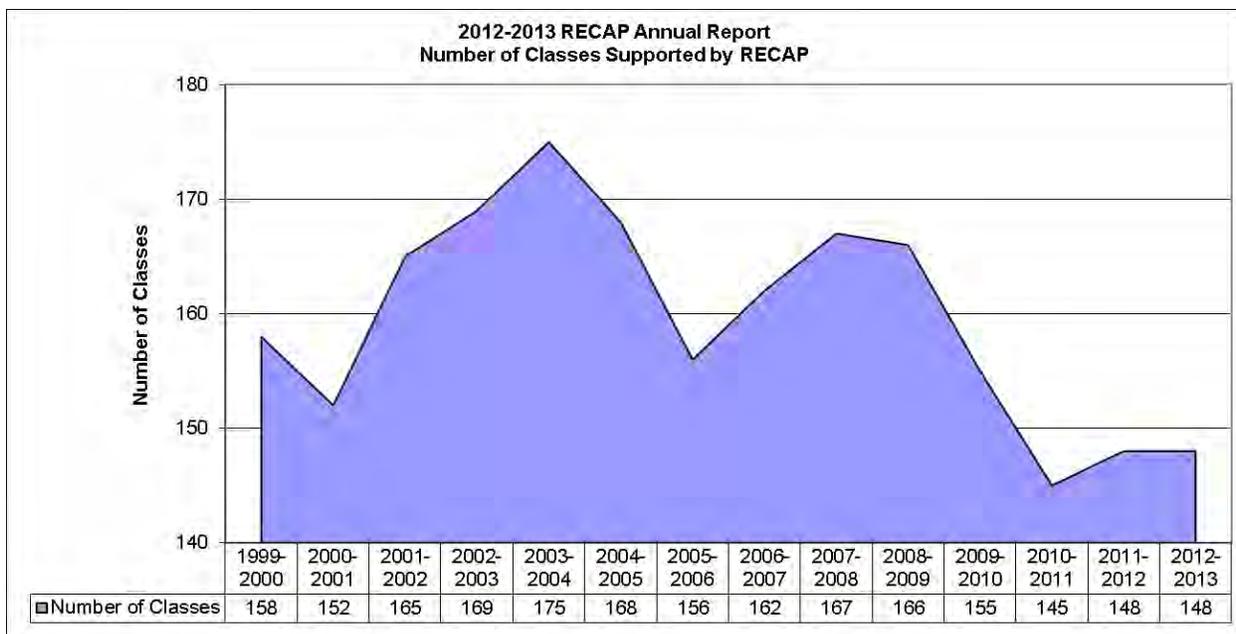


Figure A-2. Fourteen Year History of the Number of Classrooms Assessed and Supported by RECAP



Description of 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). Seven areas of classroom and program quality are measured: ***Space and Furnishings, Personal Care Routines, Language-Reasoning, Activities, Interaction, Program Structure, and Parents and Staff***. The item scale ranges from 1 to 7. A score of 1 is considered “inadequate”, 5 is an accepted standard, and 7 is considered to be “excellent”.
- ❖ From the 2009-2010 to the 2011-2012 school year, RECAP conducted a three-year pilot of the Classroom Assessment Scoring System (CLASS) on 95 different UPK teachers and classrooms. The CLASS assesses three domains: ***Emotional Support, Classroom Organization, and Instructional Support*** using a 1 to 7 scale, with 1 indicating the item being rated is minimally characteristic or low quality and 7 as highly characteristic or high quality. The CLASS provides valuable information on classroom quality indicators that is not supplied by any other assessment in RECAP. Therefore, as of the 2012-2013 school year, all RECAP classrooms are assessed with the CLASS.

Student Performance

- ❖ The Child Observation Record (COR), developed by HighScope, assesses students 2.5 to 6.0 years of age. A child’s acquisition of ***Initiative & Social, Language & Literacy, Movement & Music, and Math & Science*** skills are 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 COR growth between the fall and the following spring. RECAP has developed local norms for both prekindergarten and kindergarten using large samples (>2000).

Social-Emotional Adjustment

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

Parent Involvement

- ❖ The Family Involvement Questionnaire (FIQ) is a 21-item questionnaire that measures parental involvement in three areas: ***Parent-Teacher Communication, School Involvement, and Home Involvement***. This was the fifth year of administering the measure to RECAP families. It was also the second year it has been administered in both the fall and spring to assess changes in parent involvement throughout the course of the school year. It is the first year that the 21-item version is being used instead of the 42-item version.

Parent Perspective

- ❖ The Parent-Child Rating Scale (P-CRS) is a 39-item measure designed to assess both social-emotional competences and deficiencies. The items of the P-CRS are specifically designed to fit the perspective of parents, and were developed to gather information in the areas of ***Task Orientation, Frustration Tolerance, Positive Peer Social Relations, Negative Peer Social Relations, Self Reliance, Shy Anxious Withdrawn, and Positive Disposition***.

Reliability of the Measures

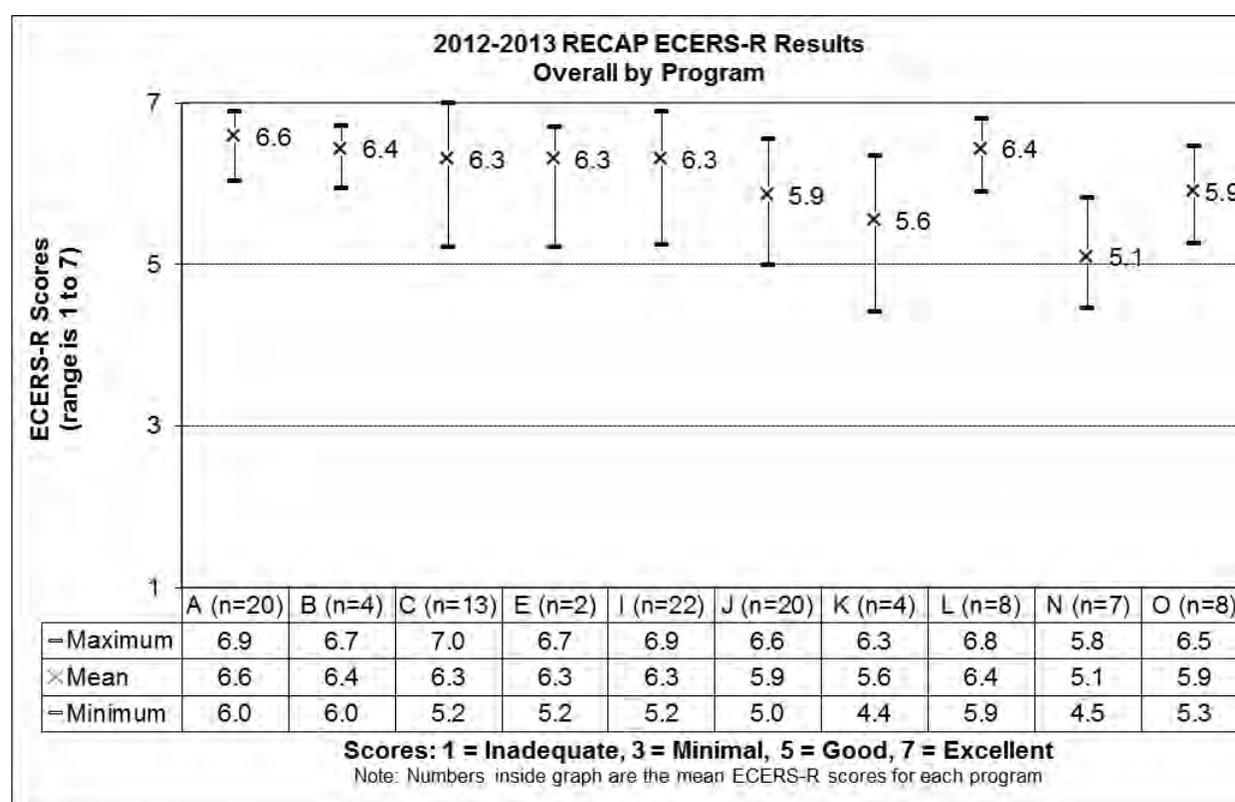
- ❖ RECAP takes great care and uses rigorous data collection procedures to ensure reliability in the measures we report annually. RECAP routinely publishes its reliability statistics.
- ❖ The primary measures of the evaluation (ECERS-R, T-CRS, and COR) have alpha-reliabilities ranging from 0.79 to 0.93. To ensure the inter-rater reliability of the ECERS-R observation, 16 classrooms were observed by two observers, so that the level of agreement between different observers could be calculated. The inter-rater reliability for total ECERS-R score was $r = 0.96$ ($n=16$ dual observations). When using the formula $a/a+d$ (a =agreement and d =disagreement), the median inter-rater reliability was .93 for exact matches and .95 for differences of one point.

Appendix B: Early Childhood Environment Rating Scale- Revised (ECERS-R)

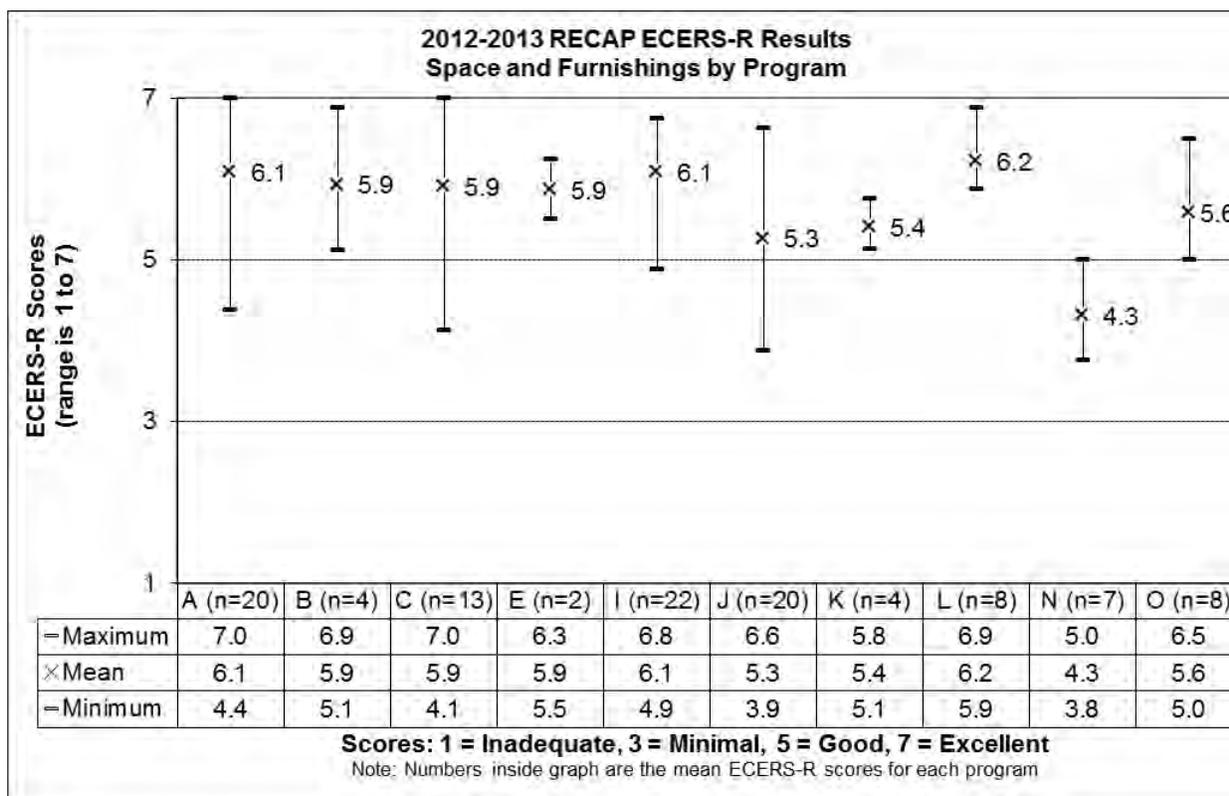
ECERS-R

ECERS-R Results by Area and Program

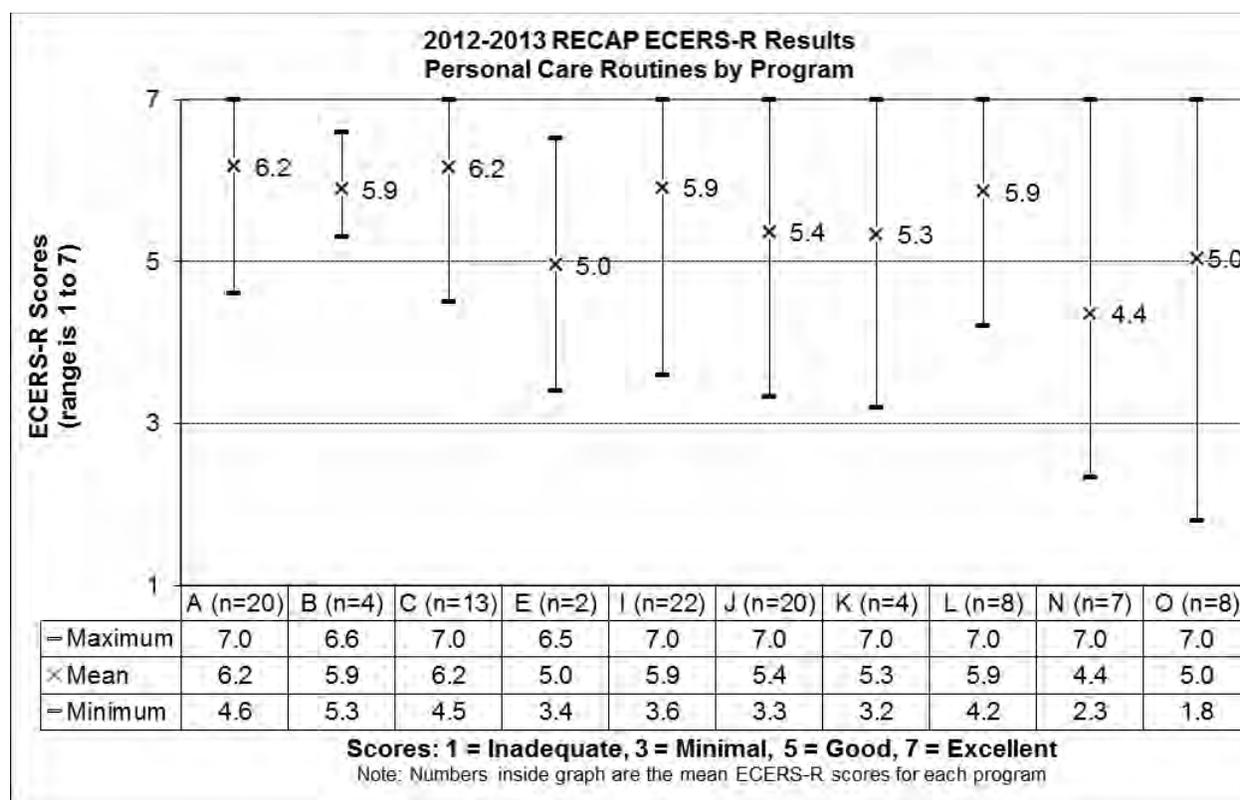
The average score for all of the RECAP classes this year was 6.2 out of 7.0, with a standard deviation of 0.6. The lowest score was 4.4 and the highest was 7.0. The median score was 6.4. Ninety-five percent of the classrooms achieved or surpassed the quality standard threshold (score of 5.0). The average scores for each of the seven areas were at or above 5.7. The area with the highest average score was *Interaction* with a score of 6.7.



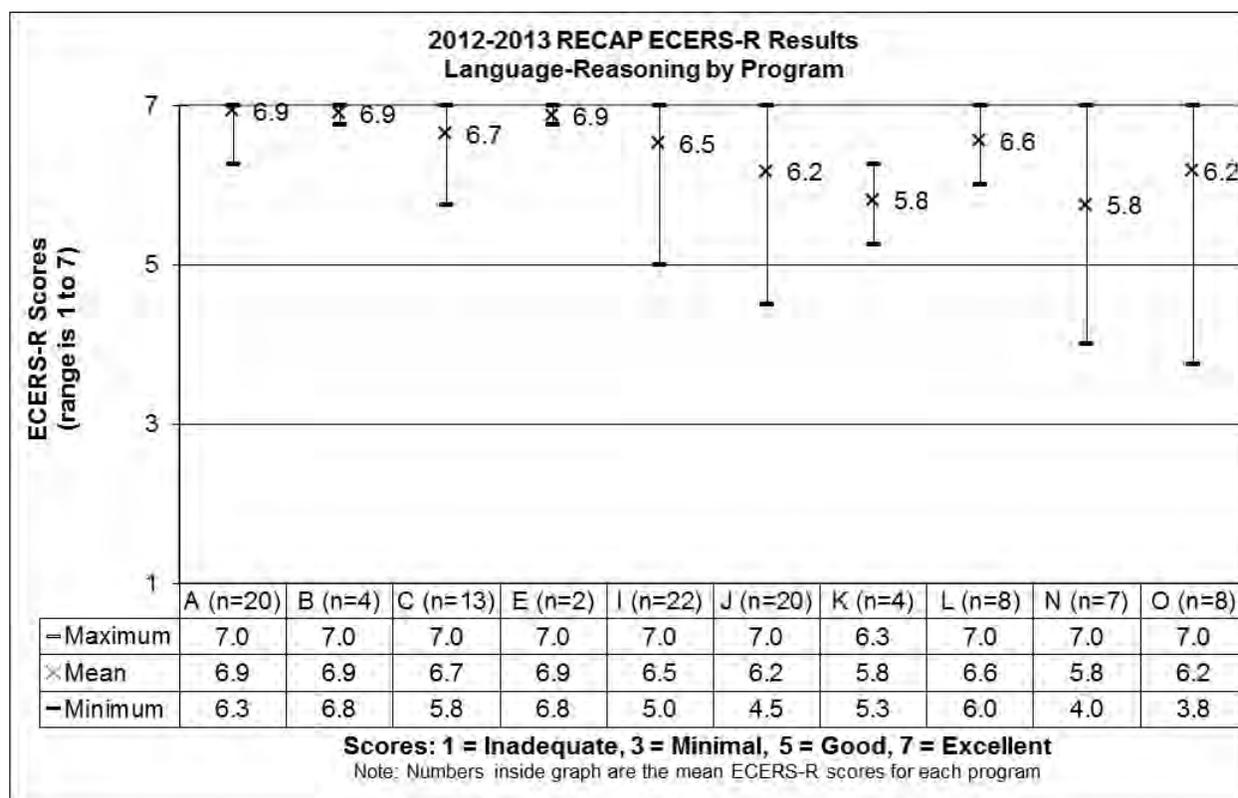
Overall - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
4-4.9	0	0	0	0	0	1	1	0	3	0	5	4.6%
5-5.9	0	1	3	1	5	11	2	1	4	4	32	29.6%
6-6.9	20	3	9	1	17	8	1	7	0	4	70	64.8%
7.0	0	0	1	0	0	0	0	0	0	0	1	0.9%
Total	20	4	13	2	22	20	4	8	7	8	108	100.0%



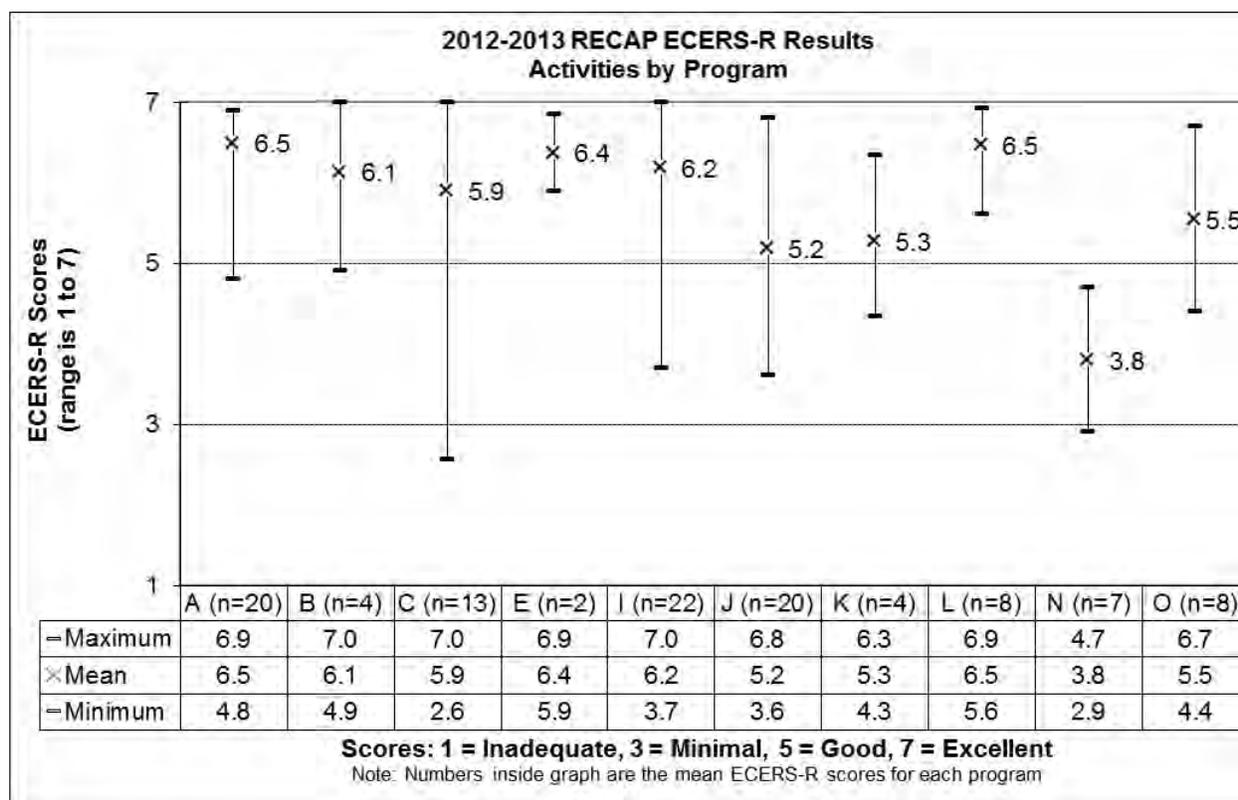
Space and Furnishings - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	1	0	0	1	0	2	1.9%
4-4.9	2	0	2	0	1	6	0	0	5	0	16	14.8%
5-5.9	3	2	2	1	7	10	4	3	1	6	39	36.1%
6-6.9	14	2	8	1	14	3	0	5	0	2	49	45.4%
7.0	1	0	1	0	0	0	0	0	0	0	2	1.9%
Total	20	4	13	2	22	20	4	8	7	8	108	100.0%



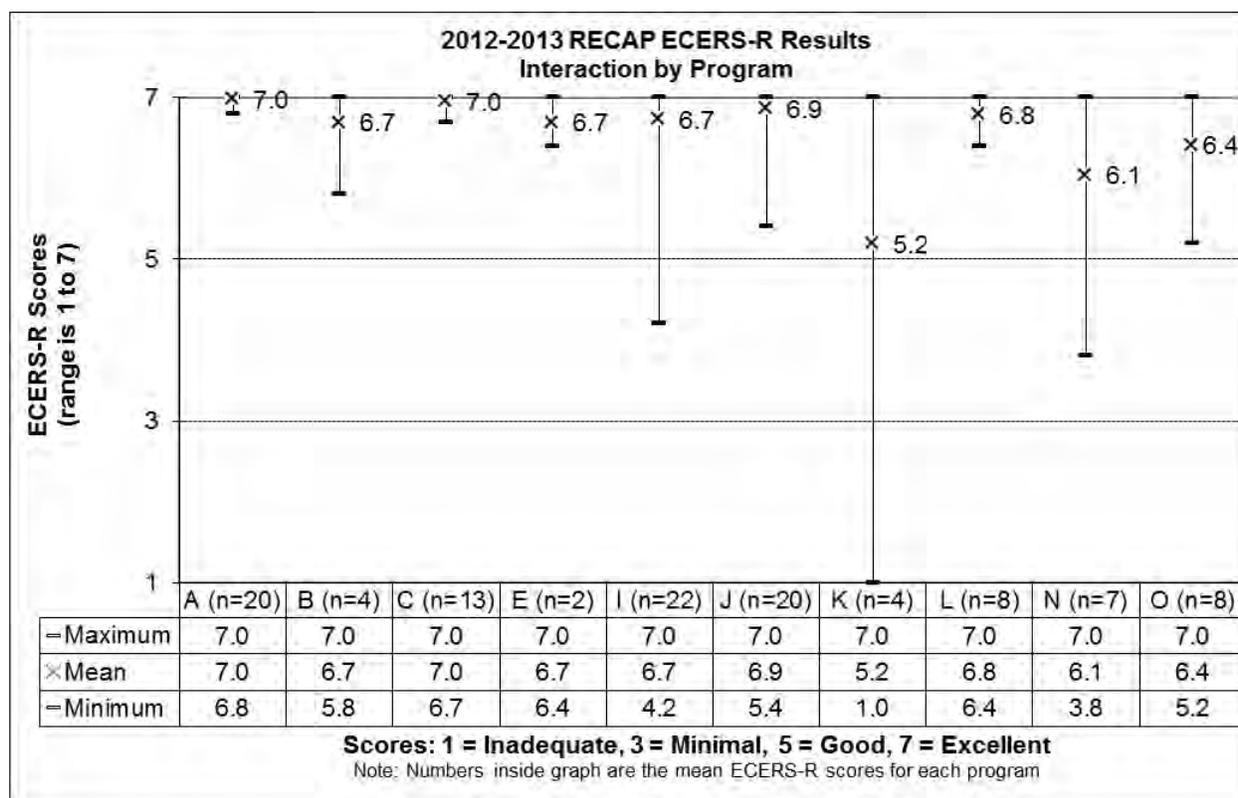
Personal Care Routines - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	1	1	0.9%
2-2.9	0	0	0	0	0	0	0	0	1	0	1	0.9%
3-3.9	0	0	0	1	1	3	1	0	2	0	8	7.4%
4-4.9	1	0	2	0	3	2	0	1	2	2	13	12.0%
5-5.9	6	2	2	0	7	8	1	4	0	2	32	29.6%
6-6.9	11	2	7	1	6	6	1	2	1	2	39	36.1%
7.0	2	0	2	0	5	1	1	1	1	1	14	13.0%
Total	20	4	13	2	22	20	4	8	7	8	108	100.0%



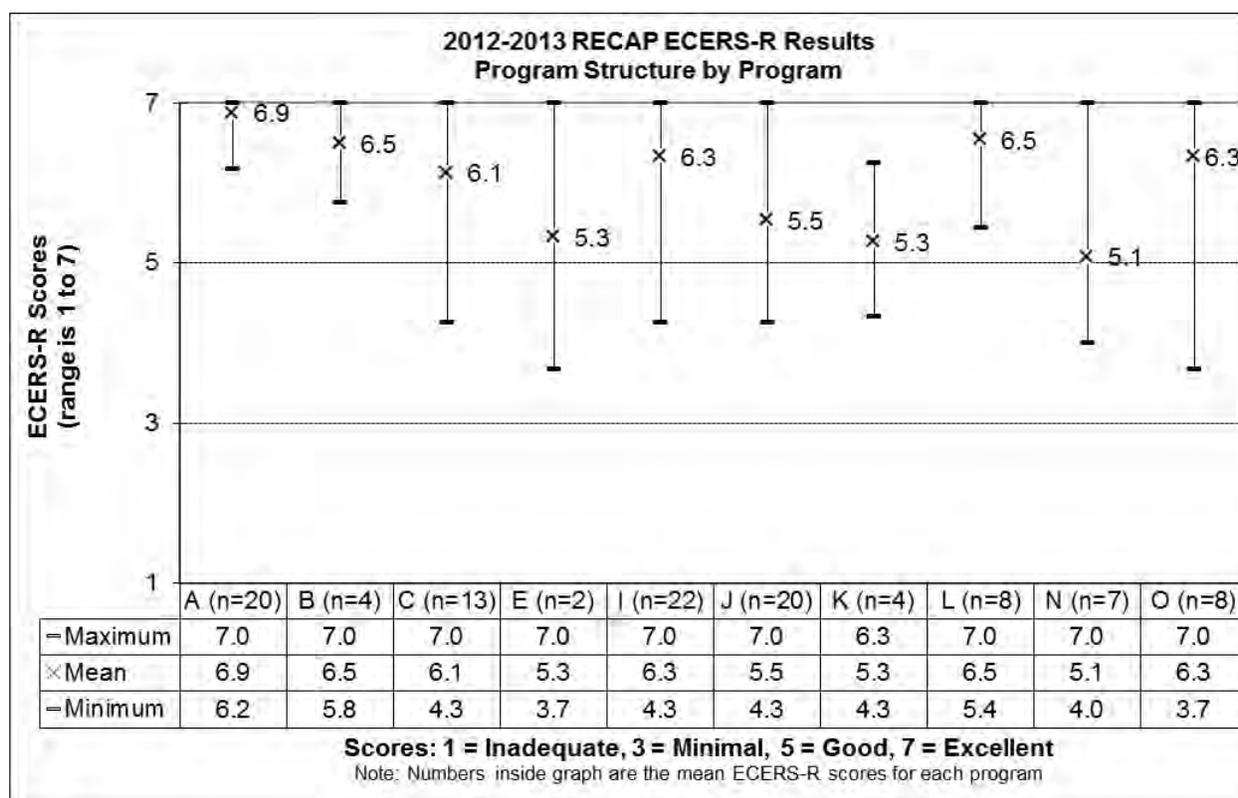
Language-Reasoning - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	0	0	1	1	0.9%
4-4.9	0	0	0	0	0	2	0	0	2	0	4	3.7%
5-5.9	0	0	2	0	3	3	2	0	1	0	11	10.2%
6-6.9	4	2	5	1	11	13	2	5	2	5	50	46.3%
7.0	16	2	6	1	8	2	0	3	2	2	42	38.9%
Total	20	4	13	2	22	20	4	8	7	8	108	100.0%



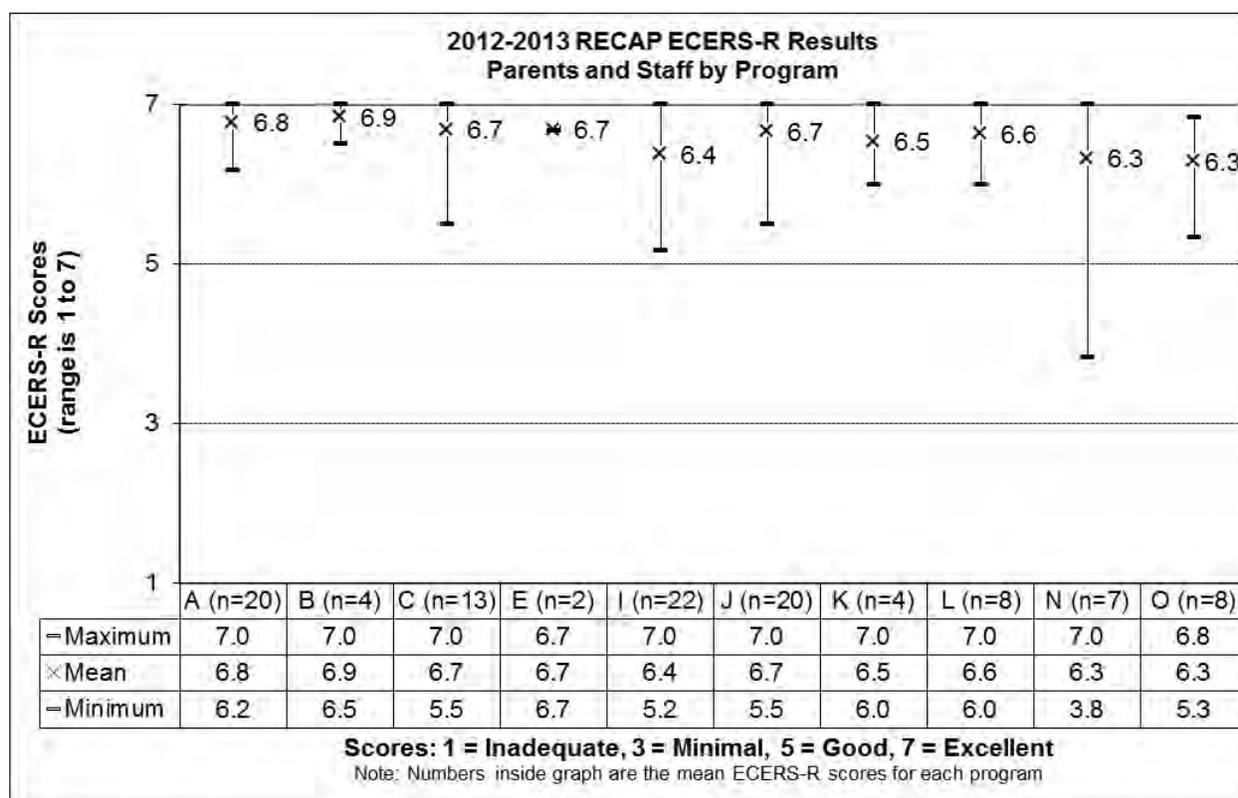
Activities - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	1	0	0	0	0	0	1	0	2	1.9%
3-3.9	0	0	0	0	1	1	0	0	3	0	5	4.6%
4-4.9	1	1	1	0	2	10	2	0	3	3	23	21.3%
5-5.9	1	1	1	1	3	2	1	1	0	2	13	12.0%
6-6.9	18	1	9	1	14	7	1	7	0	3	61	56.5%
7.0	0	1	1	0	2	0	0	0	0	0	4	3.7%
Total	20	4	13	2	22	20	4	8	7	8	108	100.0%



Interaction - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	1	0	0	0	1	0.9%
2-2.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	0	1	0	1	0.9%
4-4.9	0	0	0	0	1	0	0	0	0	0	1	0.9%
5-5.9	0	1	0	0	0	1	0	0	2	2	6	5.6%
6-6.9	1	0	3	1	8	3	2	4	1	2	25	23.1%
7.0	19	3	10	1	13	16	1	4	3	4	74	68.5%
Total	20	4	13	2	22	20	4	8	7	8	108	100.0%

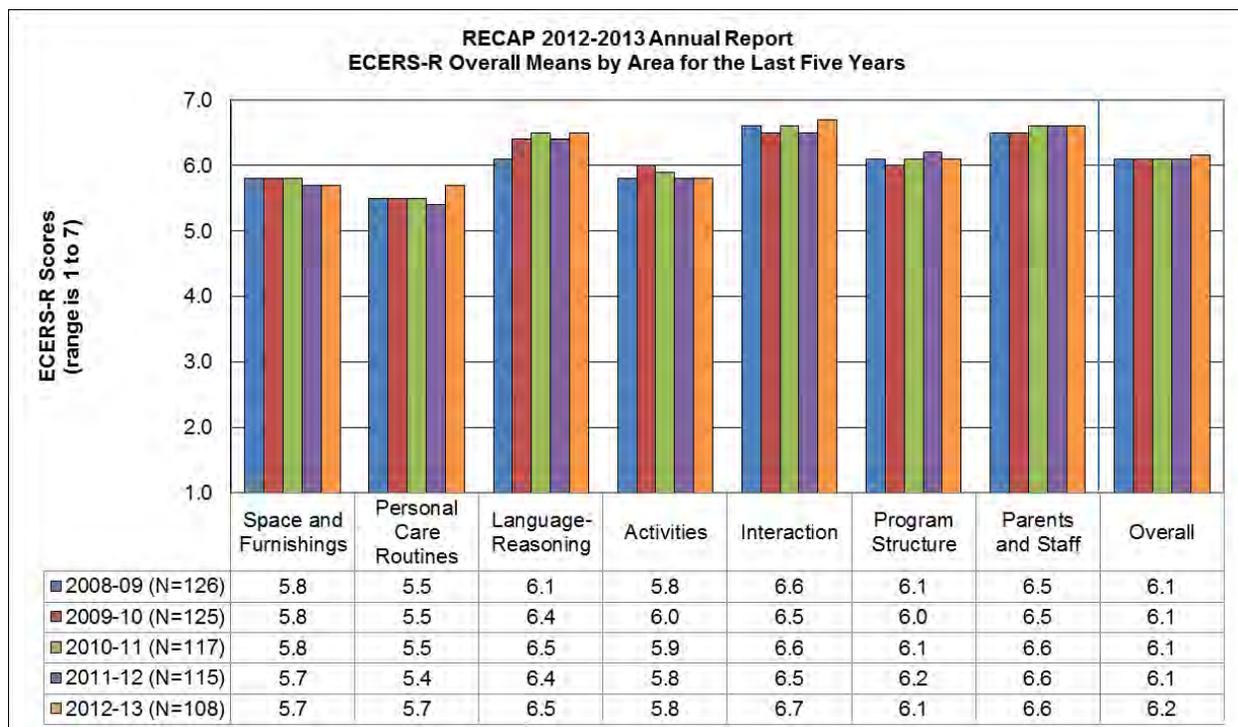


Program Structure - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	1	0	0	0	0	0	1	2	1.9%
4-4.9	0	0	2	0	2	8	2	0	3	0	17	15.7%
5-5.9	0	1	2	0	2	3	0	2	3	0	13	12.0%
6-6.9	7	1	7	0	10	6	2	1	0	3	37	34.3%
7.0	13	2	2	1	8	3	0	5	1	4	39	36.1%
Total	20	4	13	2	22	20	4	8	7	8	108	100.0%

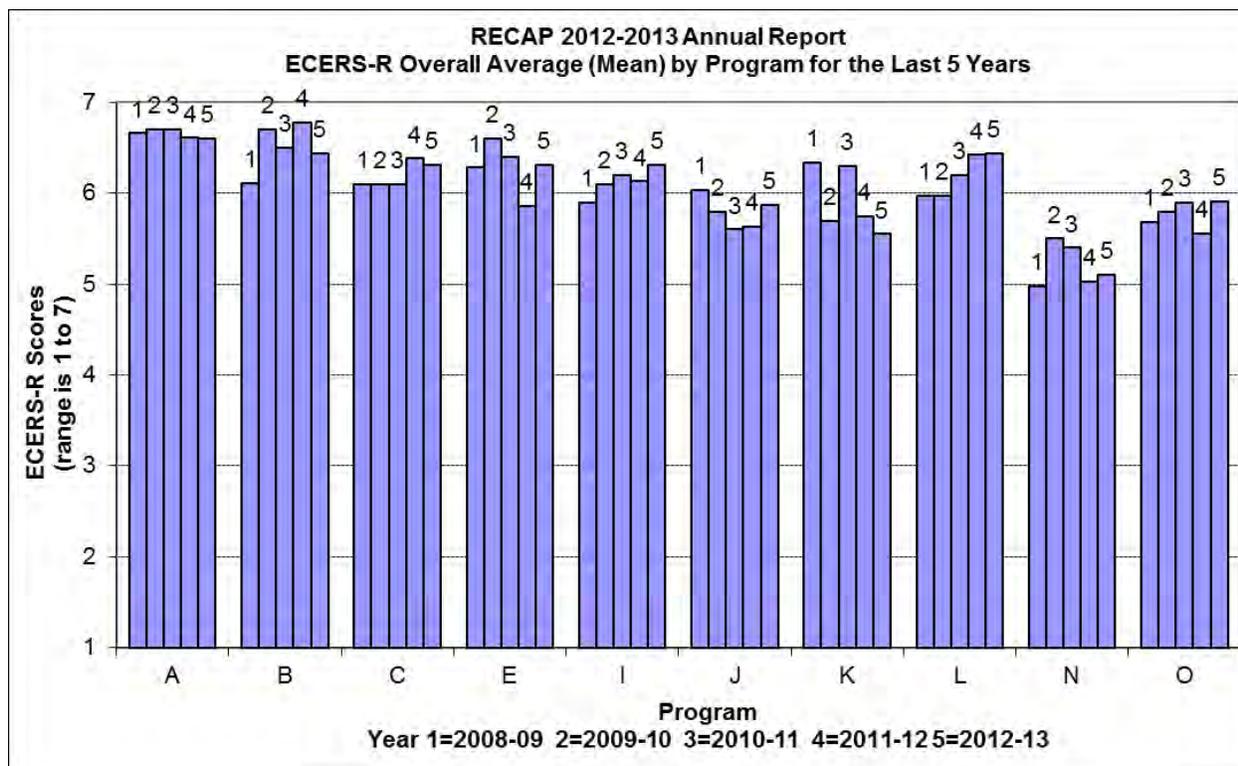


Parents and Staff - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	0	1	0	1	0.9%
4-4.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
5-5.9	0	0	1	0	3	1	0	0	0	2	7	6.5%
6-6.9	15	2	10	2	15	15	3	6	4	6	78	72.2%
7.0	5	2	2	0	4	4	1	2	2	0	22	20.4%
Total	20	4	13	2	22	20	4	8	7	8	108	100.0%

ECERS-R Overall Means by Area – Five-Year Perspective



ECERS-R Overall Means by Program – Five-Year Perspective

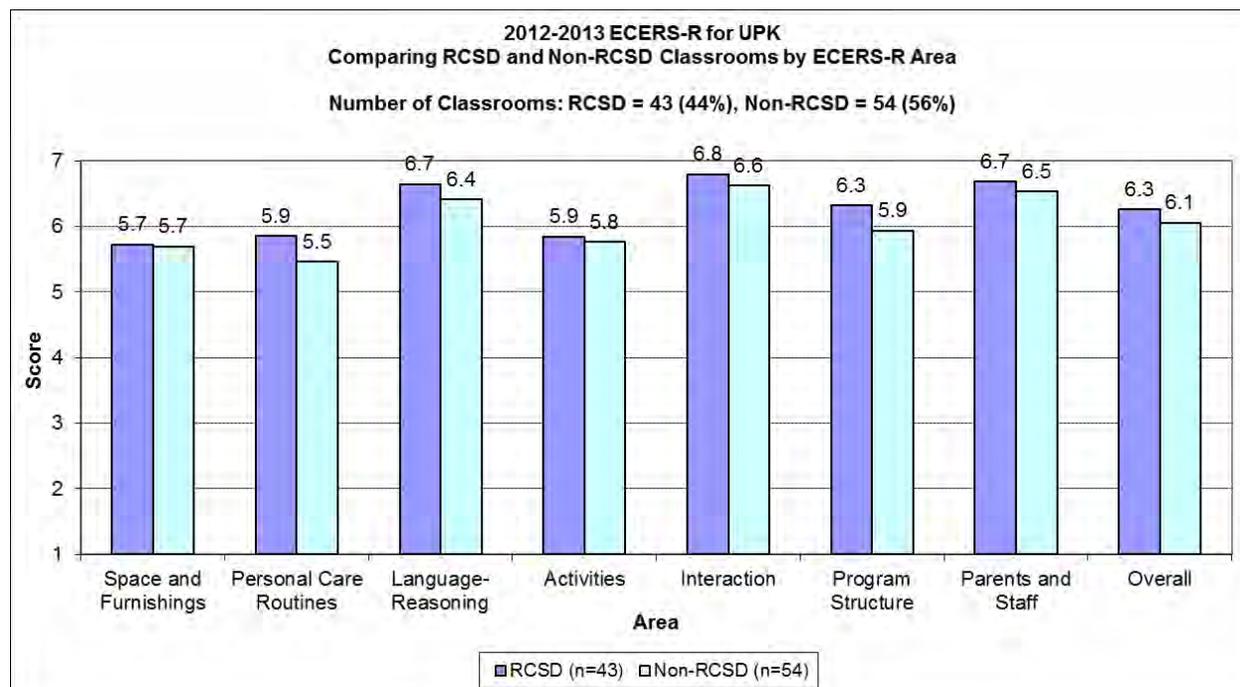


2012-2013 RECAP Annual Report													
ECERS-R Overall Average (Mean) by Program for the Last 5 Years													
School Year	Year	n	Mean	Program									
				A	B	C	E	I	J	K	L	N	O
2008-2009	1	126	6.1	6.7	6.1	6.1	6.3	5.9	6.0	6.3	6.0	5.0	5.7
2009-2010	2	125	6.1	6.7	6.7	6.1	6.6	6.1	5.8	5.7	6.0	5.5	5.8
2010-2011	3	117	6.1	6.7	6.5	6.1	6.4	6.2	5.6	6.3	6.2	5.4	5.9
2011-2012	4	115	6.1	6.6	6.8	6.4	5.9	6.1	5.6	5.8	6.4	5.0	5.6
2012-2013	5	108	6.2	6.6	6.4	6.3	6.3	6.3	5.9	5.6	6.4	5.1	5.9

Appendix C: ECERS-R for UPK

ECERS-R for UPK

ECERS-R for UPK by Area – RCSD and Non-RCSD



2012-2013 ECERS-R for UPK Comparing RCSD and Non-RCSD Classrooms by ECERS-R Area								
	Space and Furnishings	Personal Care Routines	Language-Reasoning	Activities	Interaction	Program Structure	Parents and Staff	Overall
RCSD (n=43)	5.7	5.9	6.7	5.9	6.8	6.3	6.7	6.3
Non-RCSD (n=54)	5.7	5.5	6.4	5.8	6.6	5.9	6.5	6.1

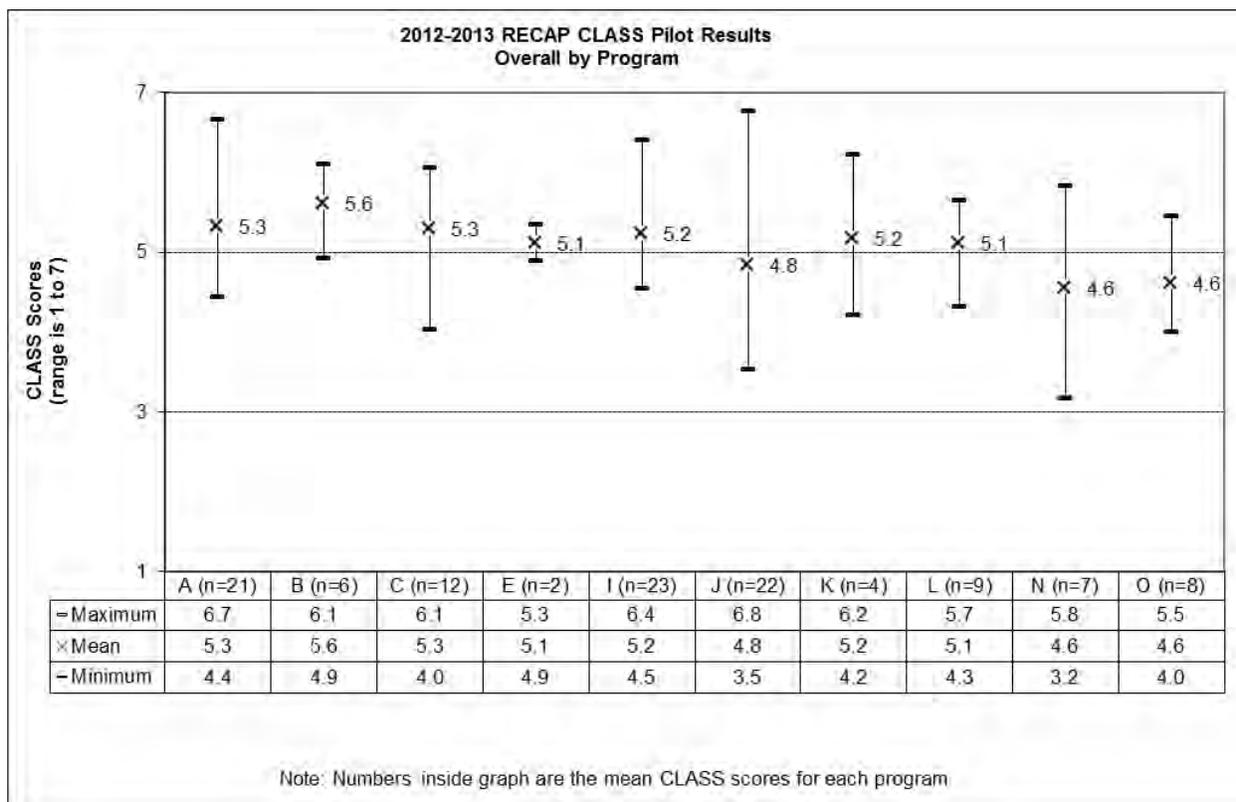
2012-2013 ECERS-R for UPK										
Descriptive Statistics										
Count within Score Range										
1=Inadequate 3=Minimum 5=Good 7=Excellent										
Subscale		1.0-1.9	2.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0	Mean	St. Dev.
Space and Furnishings	RCSD	0	0	1	9	8	23	2	5.7	1.0
	Non-RCSD	0	0	1	7	26	20	0	5.7	0.7
	Total	0	0	2	16	34	43	2	5.7	0.8
	Percent	0%	0%	2%	16%	35%	44%	2%		
Personal Care Routines	RCSD	0	1	2	5	9	21	5	5.9	1.2
	Non-RCSD	1	0	6	8	18	14	7	5.5	1.2
	Total	1	1	8	13	27	35	12	5.6	1.2
	Percent	1%	1%	8%	13%	28%	36%	12%		
Language-Reasoning	RCSD	0	0	0	2	3	13	25	6.7	0.7
	Non-RCSD	0	0	0	2	6	31	15	6.4	0.6
	Total	0	0	0	4	9	44	40	6.5	0.6
	Percent	0%	0%	0%	4%	9%	45%	41%		
Activities	RCSD	0	2	3	6	3	27	2	5.9	1.3
	Non-RCSD	0	0	2	16	5	29	2	5.8	1.1
	Total	0	2	5	22	8	56	4	5.8	1.1
	Percent	0%	2%	5%	23%	8%	58%	4%		
Interaction	RCSD	0	0	1	0	3	5	34	6.8	0.6
	Non-RCSD	1	0	0	1	3	15	34	6.6	1.0
	Total	1	0	1	1	6	20	68	6.7	0.8
	Percent	1%	0%	1%	1%	6%	21%	70%		
Program Structure	RCSD	0	0	0	5	6	15	17	6.3	0.9
	Non-RCSD	0	0	2	11	5	20	16	5.9	1.1
	Total	0	0	2	16	11	35	33	6.1	1.0
	Percent	0%	0%	2%	16%	11%	36%	34%		
Parents and Staff	RCSD	0	0	1	0	1	30	11	6.7	0.5
	Non-RCSD	0	0	0	0	6	37	11	6.5	0.5
	Total	0	0	1	0	7	67	22	6.6	0.5
	Percent	0%	0%	1%	0%	7%	69%	23%		
Overall	RCSD	0	0	0	3	8	31	1	6.3	0.7
	Non-RCSD	0	0	0	2	21	31	0	6.1	0.6
	Total	0	0	0	5	29	62	1	6.2	0.6
	Percent	0%	0%	0%	5%	30%	64%	1%		

Note: Number of Classrooms: RCSD=43, Non-RCSD=54

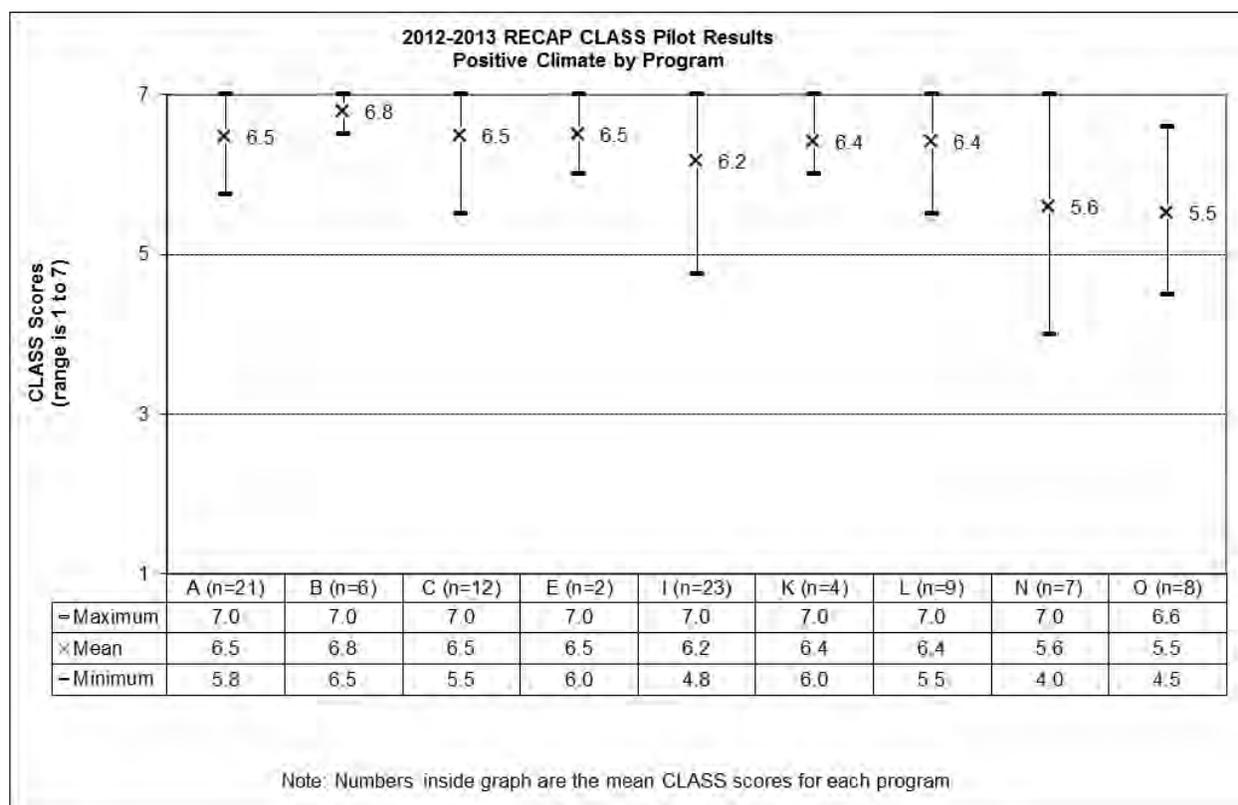
Appendix D: Classroom Assessment Scoring System (CLASS)

CLASS

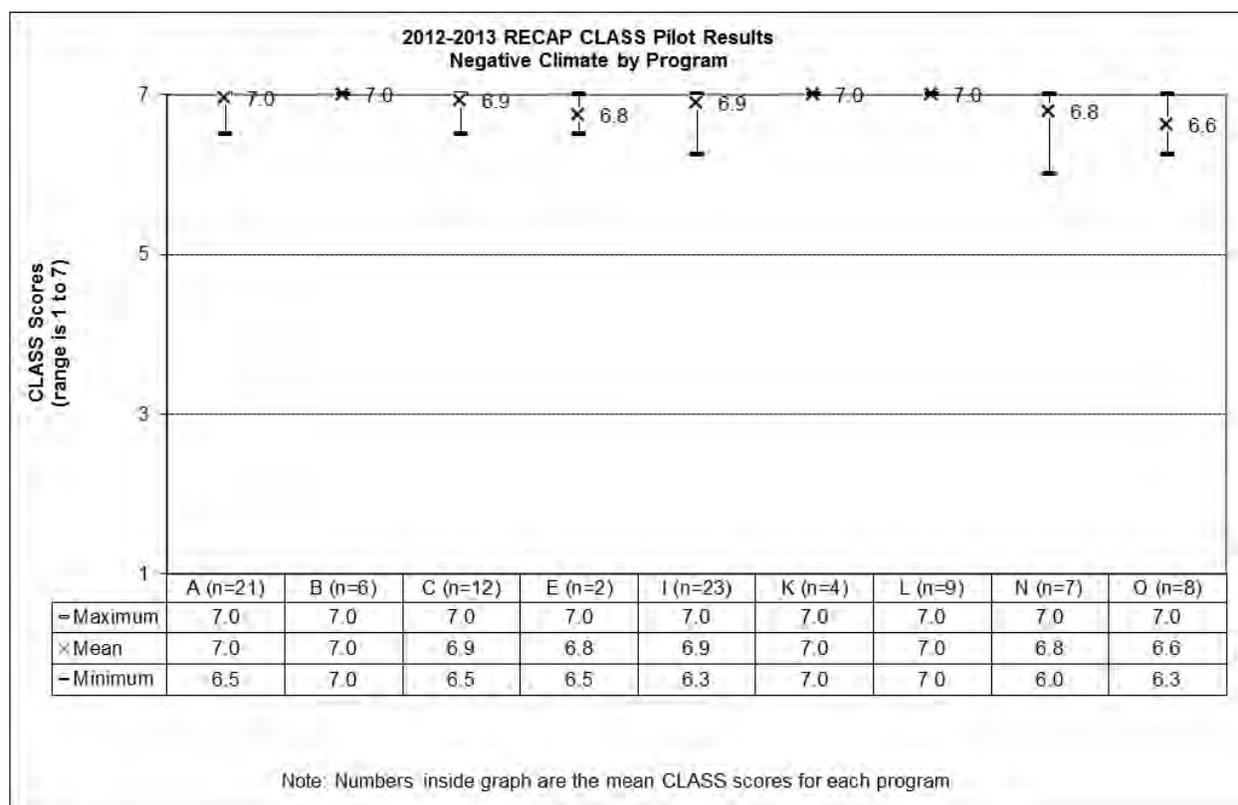
CLASS Results by Subdomain and Program



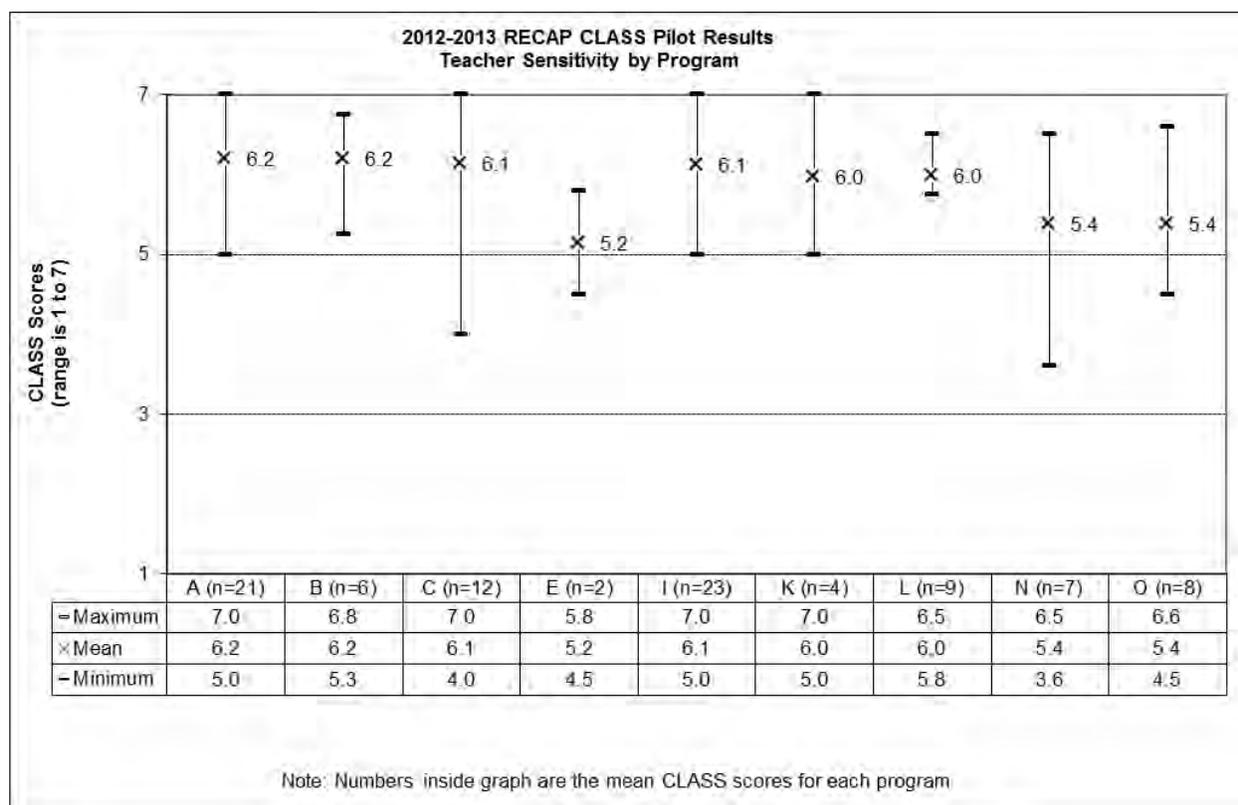
Overall - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	3	0	0	2	0	5	4.4%
4-4.9	5	1	3	1	12	12	2	3	2	6	47	41.2%
5-5.9	13	4	7	1	8	2	1	6	3	2	47	41.2%
6-6.9	3	1	2	0	3	5	1	0	0	0	15	13.2%
7.0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	21	6	12	2	23	22	4	9	7	8	114	100.0%



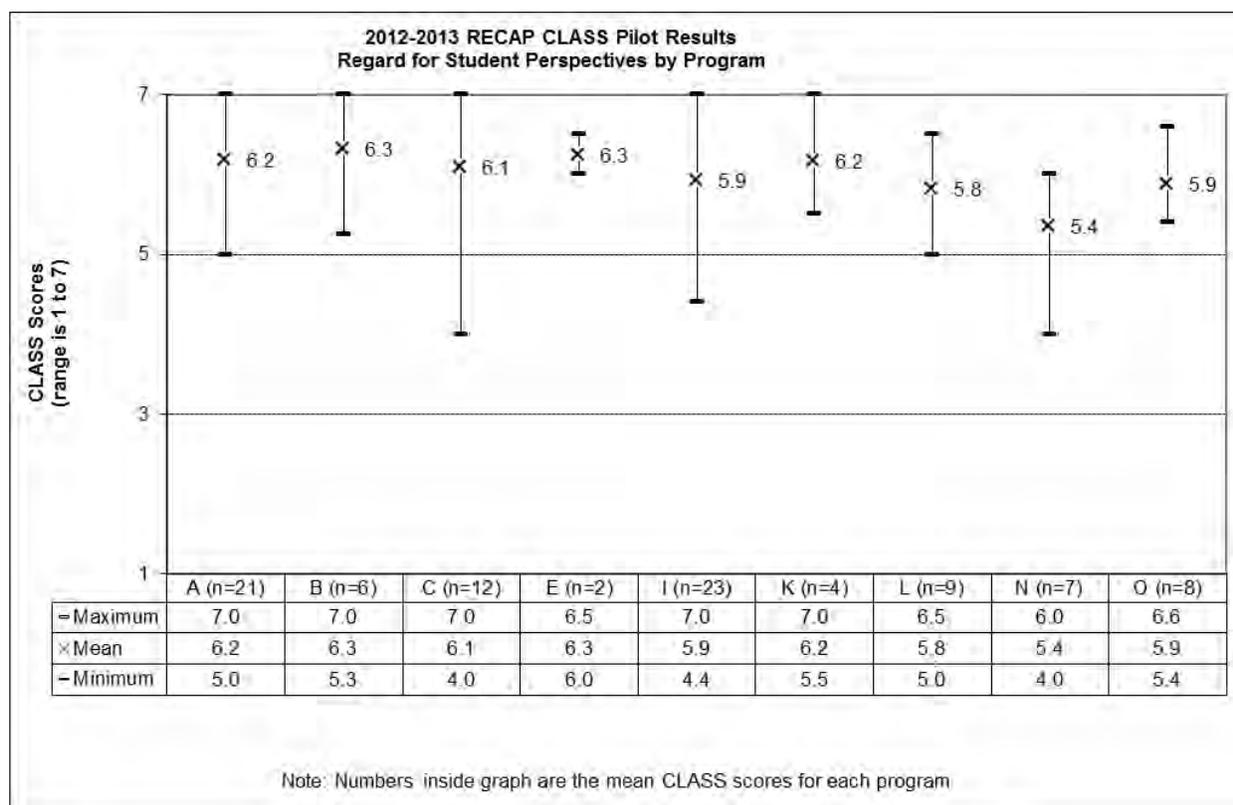
Positive Climate - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	0	0	0	0.0%
4-4.9	0	0	0	0	1	0	0	2	1	4	4.3%
5-5.9	2	0	2	0	5	0	1	1	5	16	17.4%
6-6.9	11	3	5	1	13	3	6	3	2	47	51.1%
7.0	8	3	5	1	4	1	2	1	0	25	27.2%
Total	21	6	12	2	23	4	9	7	8	92	100.0%



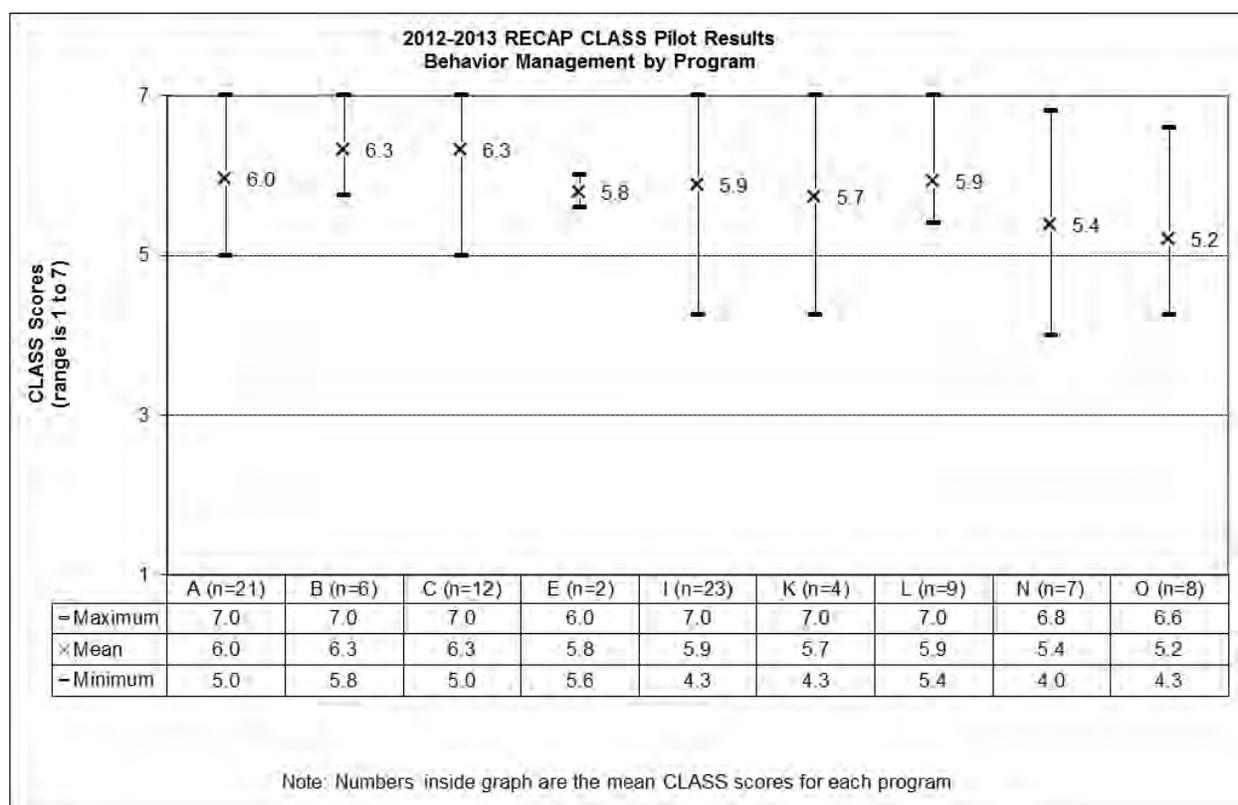
Negative Climate - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	0	0	0	0.0%
4-4.9	0	0	0	0	0	0	0	0	0	0	0.0%
5-5.9	0	0	0	0	0	0	0	0	0	0	0.0%
6-6.9	2	0	2	1	7	0	0	3	5	20	21.7%
7.0	19	6	10	1	16	4	9	4	3	72	78.3%
Total	21	6	12	2	23	4	9	7	8	92	100.0%



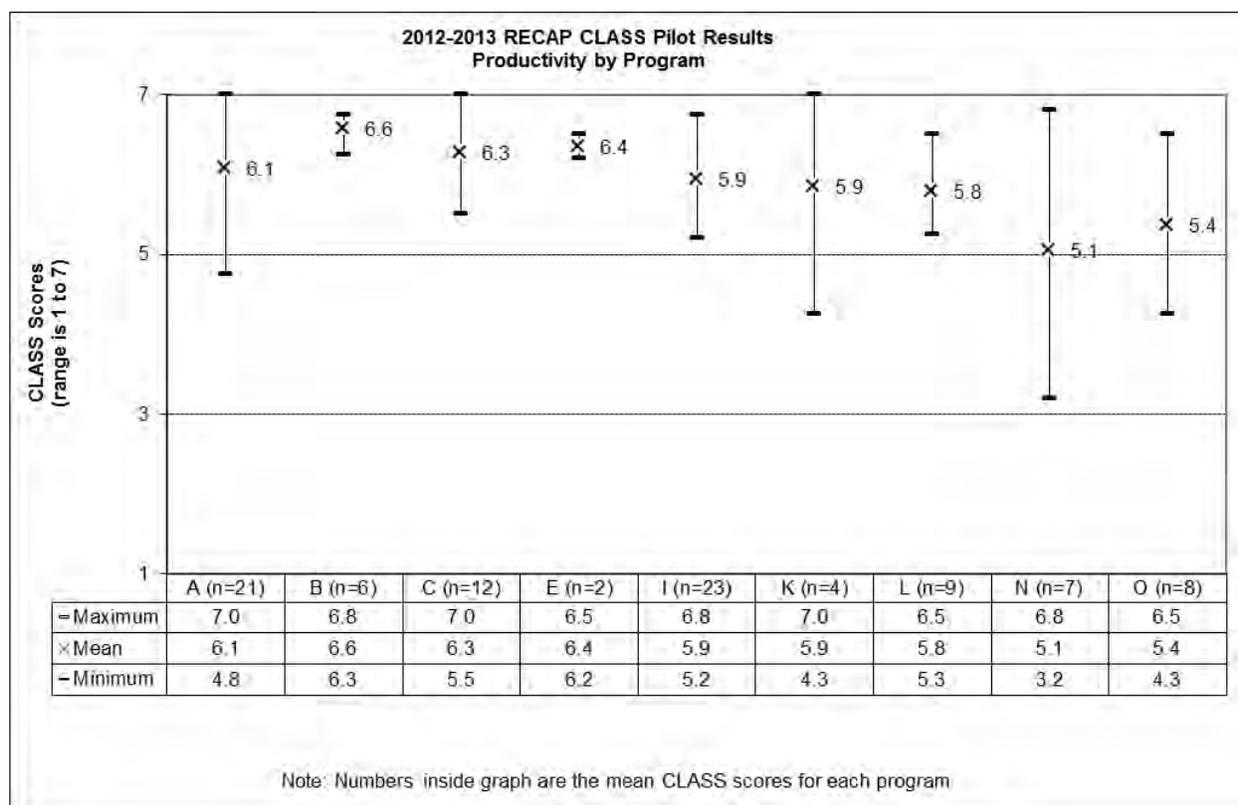
Teacher Sensitivity - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	1	0	1	1.1%
4-4.9	0	0	1	1	0	0	0	1	2	5	5.4%
5-5.9	4	1	2	1	5	2	3	2	5	25	27.2%
6-6.9	14	5	5	0	15	1	6	3	1	50	54.3%
7.0	3	0	4	0	3	1	0	0	0	11	12.0%
Total	21	6	12	2	23	4	9	7	8	92	100.0%



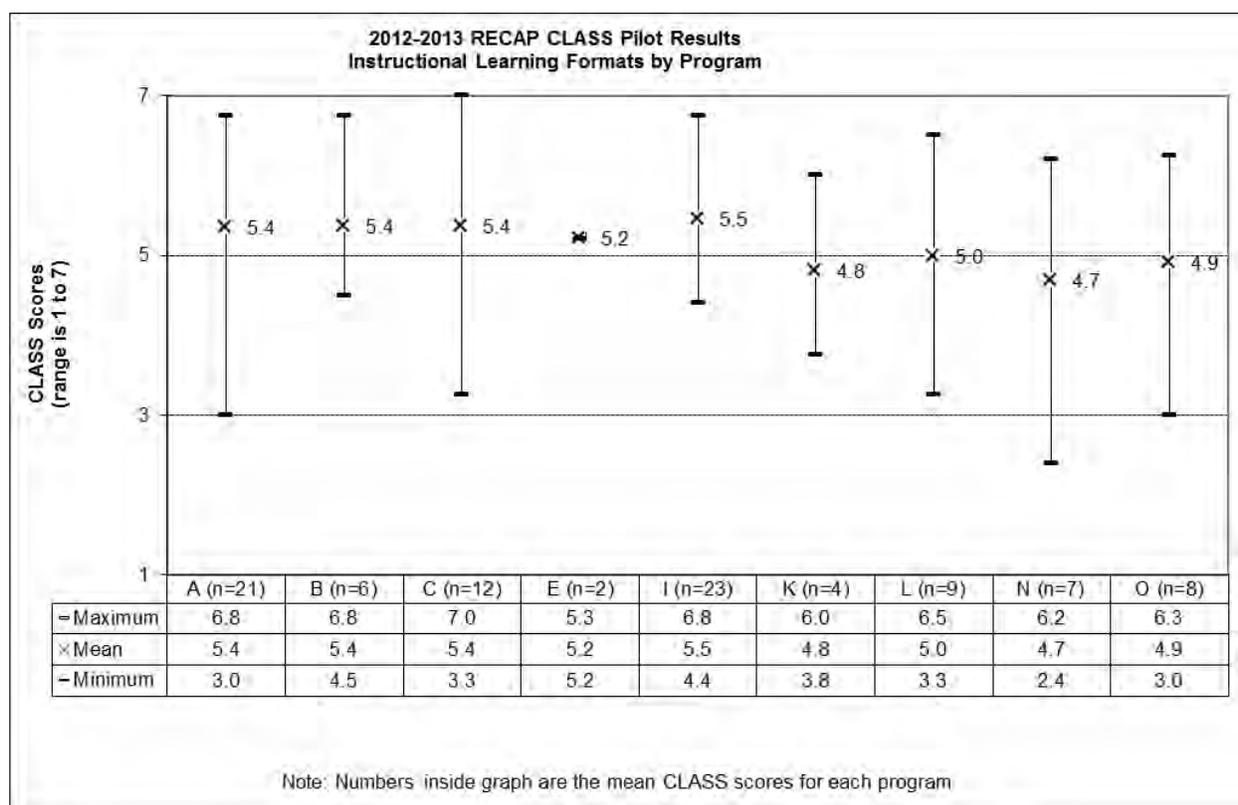
Regard for Student Perspectives - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	0	0	0	0.0%
4-4.9	0	0	1	0	2	0	0	1	0	4	4.3%
5-5.9	7	1	3	0	7	1	4	3	4	30	32.6%
6-6.9	11	4	5	2	13	2	5	3	4	49	53.3%
7.0	3	1	3	0	1	1	0	0	0	9	9.8%
Total	21	6	12	2	23	4	9	7	8	92	100.0%



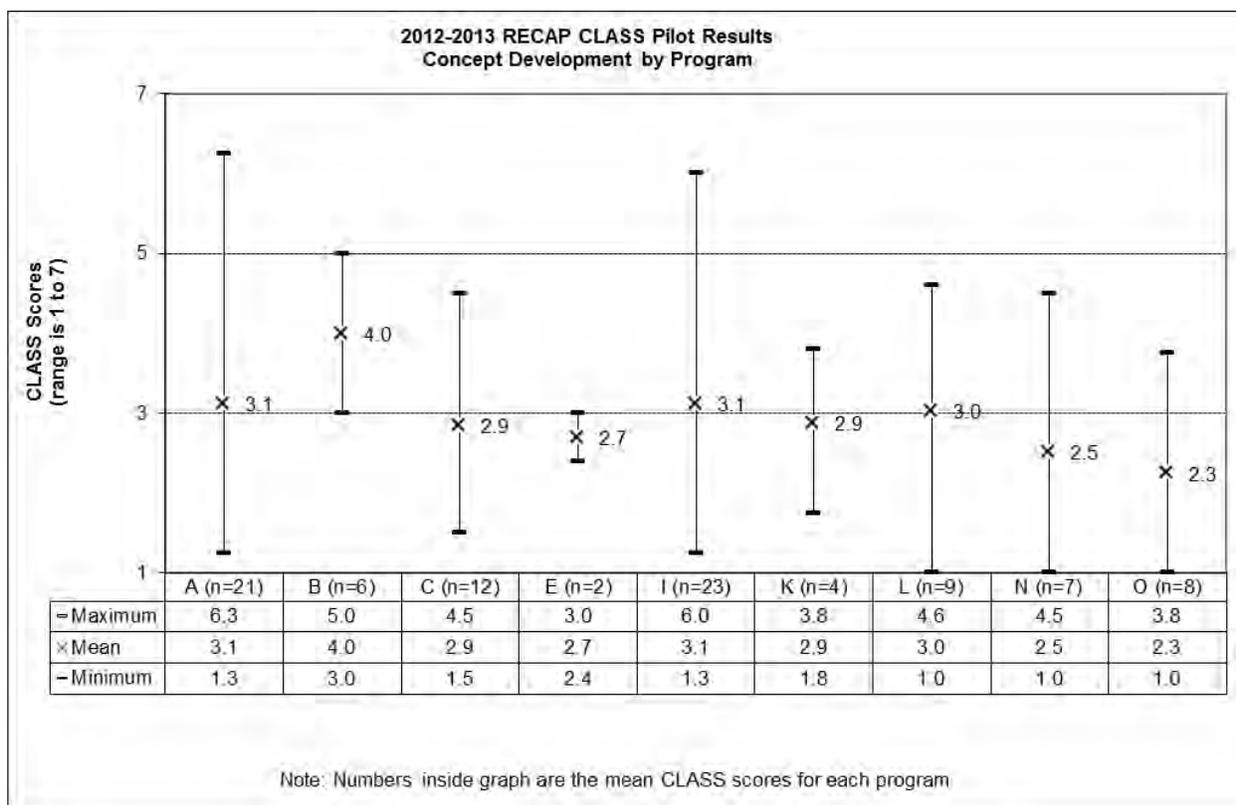
Behavior Management - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	0	0	0	0.0%
4-4.9	0	0	0	0	2	1	0	3	3	9	9.8%
5-5.9	8	1	1	1	8	1	5	1	3	29	31.5%
6-6.9	12	4	9	1	11	1	3	3	2	46	50.0%
7.0	1	1	2	0	2	1	1	0	0	8	8.7%
Total	21	6	12	2	23	4	9	7	8	92	100.0%



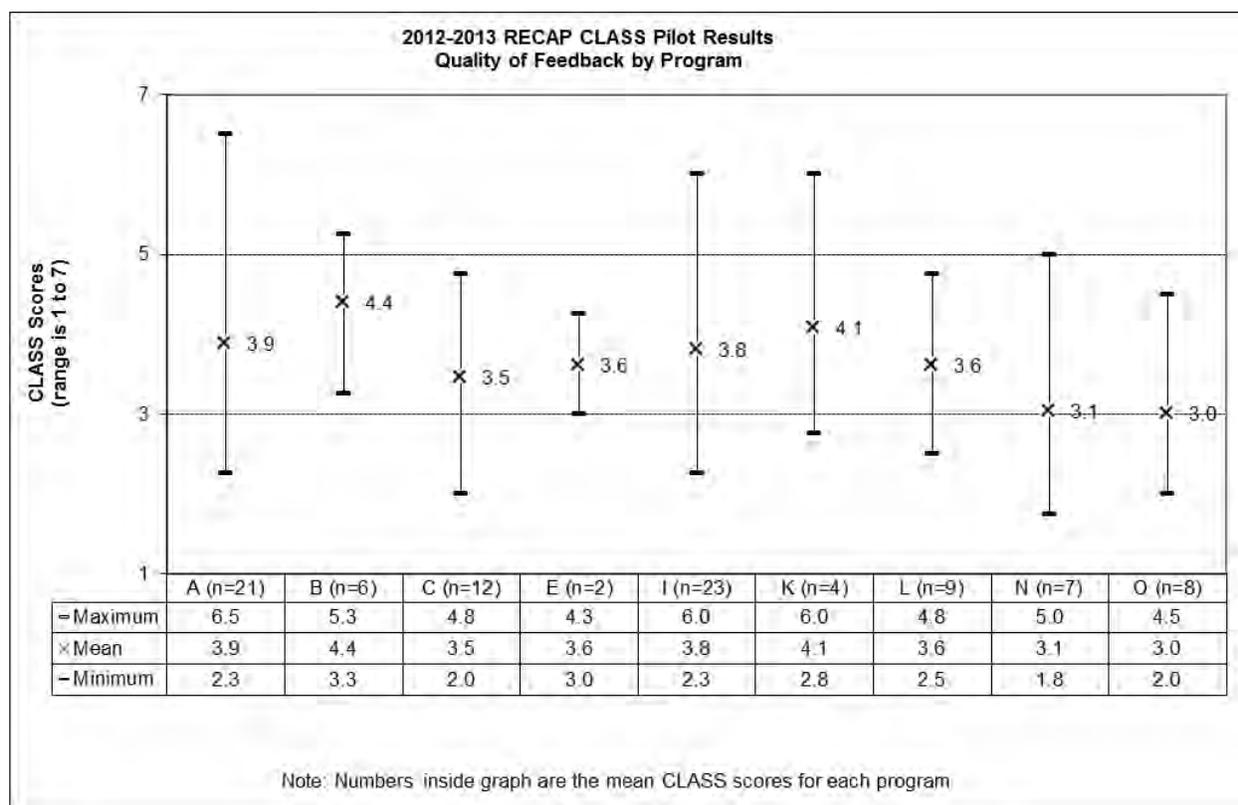
Productivity - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	0	0	0	0.0%
3-3.9	0	0	0	0	0	0	0	2	0	2	2.2%
4-4.9	1	0	0	0	0	1	0	1	2	5	5.4%
5-5.9	5	0	2	0	12	1	6	1	4	31	33.7%
6-6.9	14	6	9	2	11	1	3	3	2	51	55.4%
7.0	1	0	1	0	0	1	0	0	0	3	3.3%
Total	21	6	12	2	23	4	9	7	8	92	100.0%



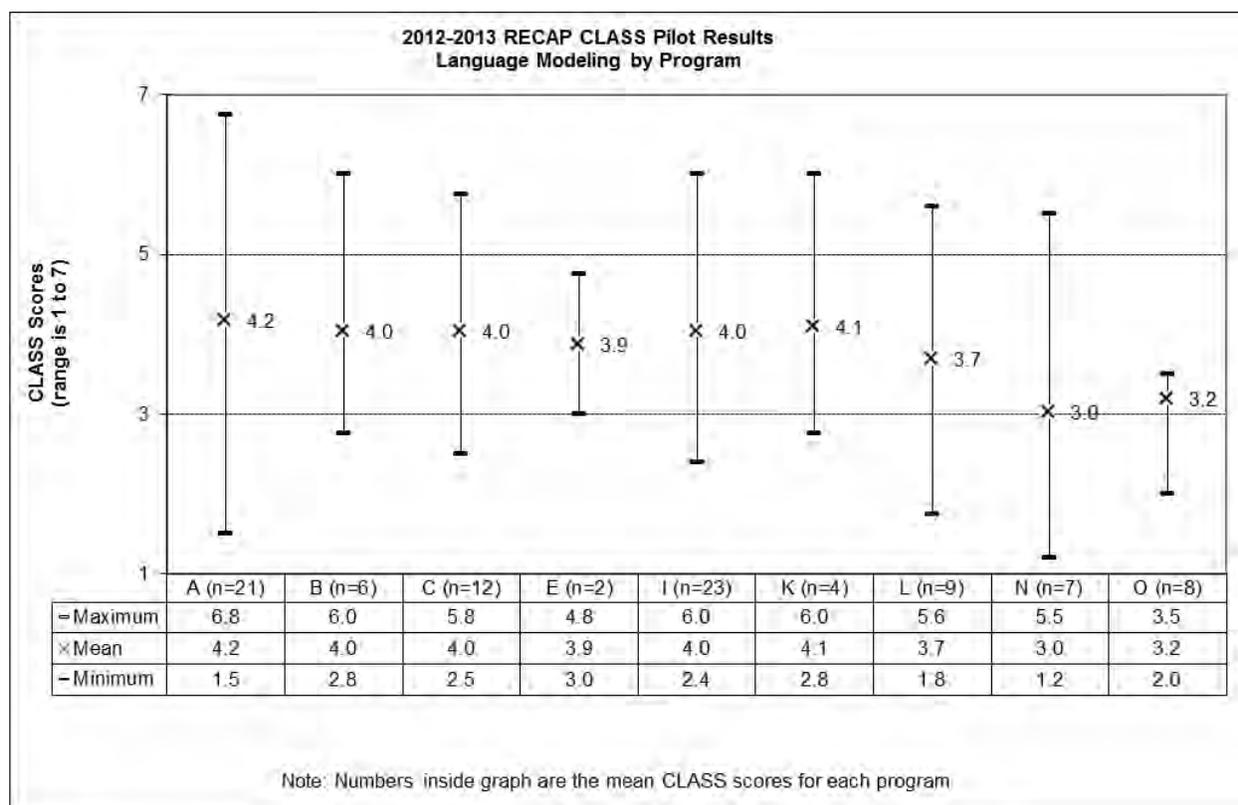
Instructional Learning Formats - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	0	0	0	0.0%
2-2.9	0	0	0	0	0	0	0	1	0	1	1.1%
3-3.9	1	0	2	0	0	1	1	1	1	7	7.6%
4-4.9	5	2	1	0	3	1	3	1	2	18	19.6%
5-5.9	10	3	5	2	15	1	4	3	3	46	50.0%
6-6.9	5	1	3	0	5	1	1	1	2	19	20.7%
7.0	0	0	1	0	0	0	0	0	0	1	1.1%
Total	21	6	12	2	23	4	9	7	8	92	100.0%



Concept Development - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	2	0	3	0	6	1	1	4	3	20	21.7%
2-2.9	7	0	4	1	5	1	3	0	4	25	27.2%
3-3.9	9	3	3	1	6	2	3	1	1	29	31.5%
4-4.9	2	1	2	0	4	0	2	2	0	13	14.1%
5-5.9	0	2	0	0	0	0	0	0	0	2	2.2%
6-6.9	1	0	0	0	2	0	0	0	0	3	3.3%
7.0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	21	6	12	2	23	4	9	7	8	92	100.0%

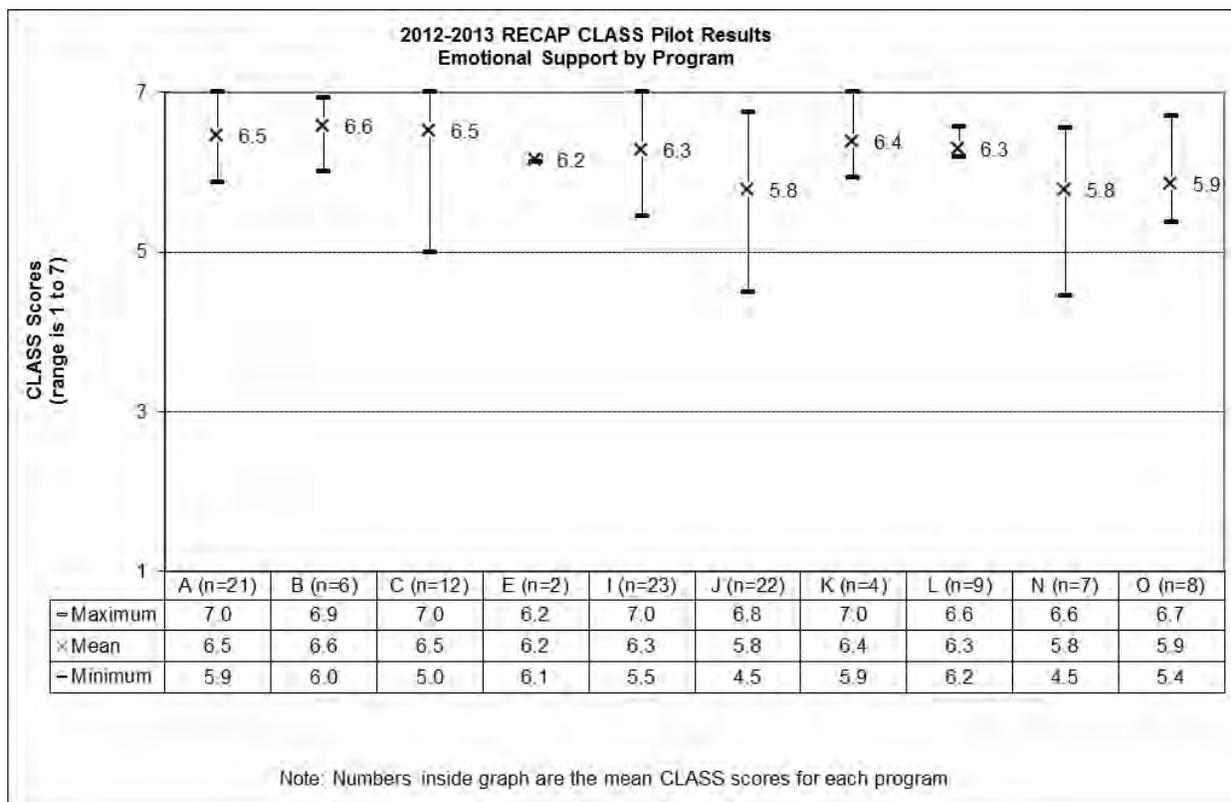


Quality of Feedback - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	0	0	0	0	0	0	0	2	0	2	2.2%
2-2.9	4	0	4	0	4	1	3	1	4	21	22.8%
3-3.9	9	1	3	1	11	1	1	3	2	32	34.8%
4-4.9	5	3	5	1	3	1	5	0	2	25	27.2%
5-5.9	1	2	0	0	2	0	0	1	0	6	6.5%
6-6.9	2	0	0	0	3	1	0	0	0	6	6.5%
7.0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	21	6	12	2	23	4	9	7	8	92	100.0%

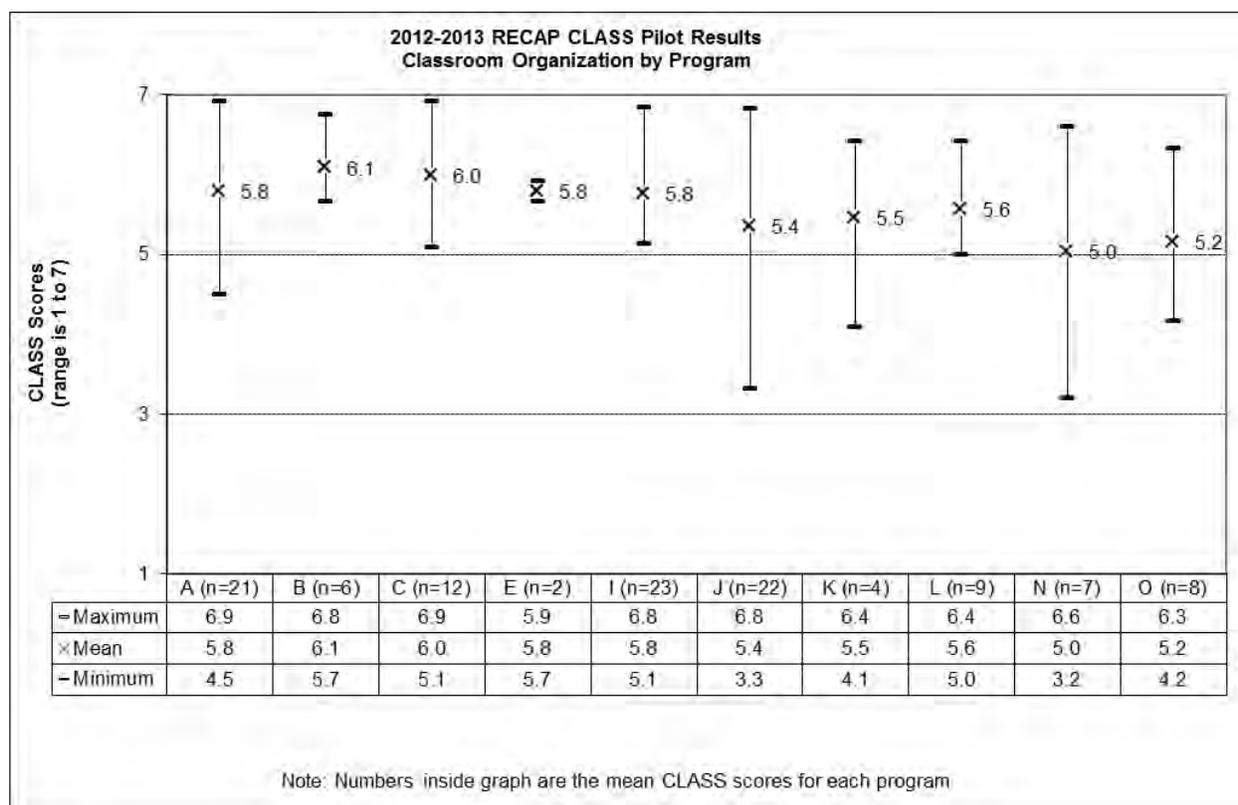


Language Modeling - Number of Classrooms Within Score Range by Program											
Score Range	A	B	C	E	I	K	L	N	O	Total	Percent
1-1.9	1	0	0	0	0	0	1	2	0	4	4.3%
2-2.9	2	1	3	0	3	1	1	1	1	13	14.1%
3-3.9	4	2	2	1	8	1	3	2	7	30	32.6%
4-4.9	8	2	5	1	8	1	3	1	0	29	31.5%
5-5.9	4	0	2	0	3	0	1	1	0	11	12.0%
6-6.9	2	1	0	0	1	1	0	0	0	5	5.4%
7.0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	21	6	12	2	23	4	9	7	8	92	100.0%

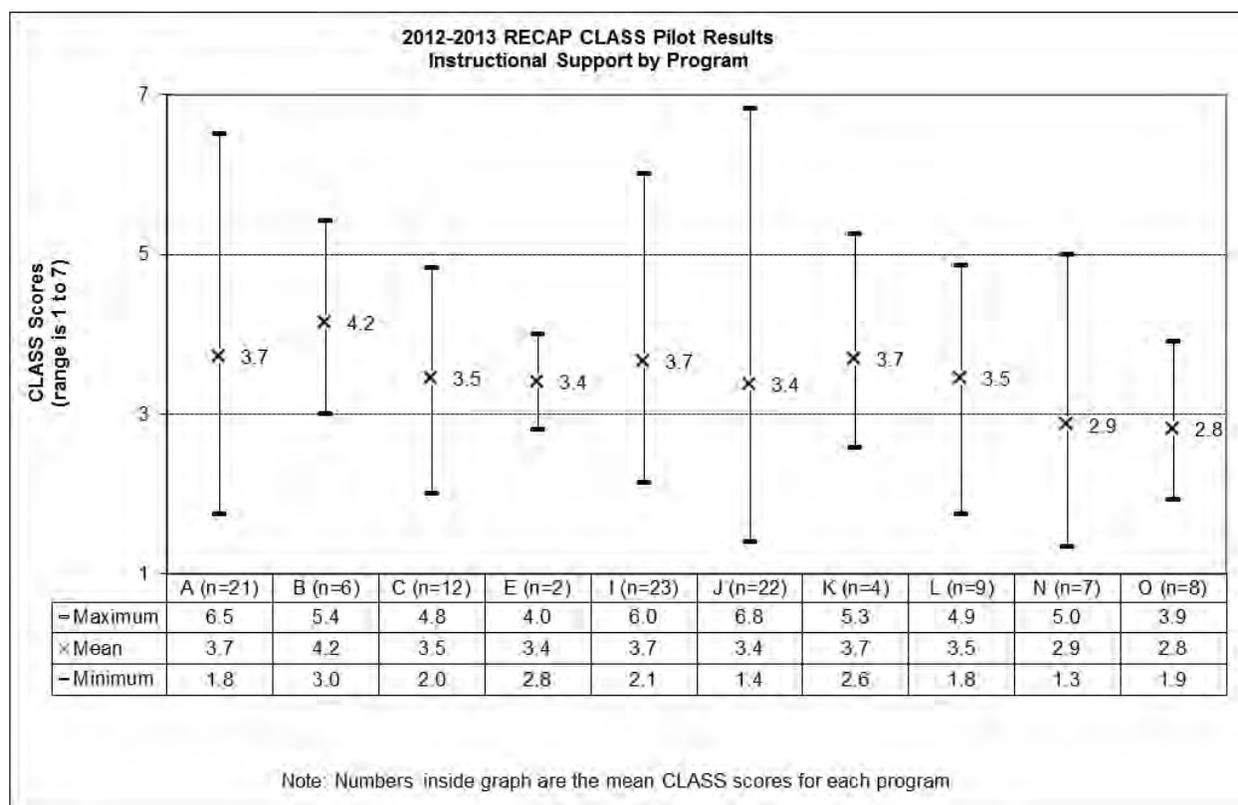
CLASS Results by Domain and Program



Emotional Support - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	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%
3-3.9	0	0	0	0	0	0	0	0	0	0	0	0.0%
4-4.9	0	0	0	0	0	3	0	0	1	0	4	3.5%
5-5.9	1	0	1	0	4	7	1	0	2	5	21	18.4%
6-6.9	19	6	8	2	18	12	2	9	4	3	83	72.8%
7.0	1	0	3	0	1	0	1	0	0	0	6	5.3%
Total	21	6	12	2	23	22	4	9	7	8	114	100.0%



Classroom Organization - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	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%
3-3.9	0	0	0	0	0	1	0	0	2	0	3	2.6%
4-4.9	1	0	0	0	0	7	1	0	1	2	12	10.5%
5-5.9	13	2	6	2	17	7	1	7	1	5	61	53.5%
6-6.9	7	4	6	0	6	7	2	2	3	1	38	33.3%
7.0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	21	6	12	2	23	22	4	9	7	8	114	100.0%



Instructional Support - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	1	0	0	0	0	7	0	1	3	1	13	11.4%
2-2.9	5	0	3	1	5	4	2	2	1	5	28	24.6%
3-3.9	6	3	5	0	10	4	0	2	2	2	34	29.8%
4-4.9	7	2	4	1	5	0	1	4	0	0	24	21.1%
5-5.9	1	1	0	0	2	4	1	0	1	0	10	8.8%
6-6.9	1	0	0	0	1	3	0	0	0	0	5	4.4%
7.0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	21	6	12	2	23	22	4	9	7	8	114	100.0%

Appendix E: Children's Outcomes – Additional Information

COR & T-CRS

The Four COR32 Subscales for RECAP

I. Initiative & Social

- A. Making choices and plans
- B. Solving problems with materials
- C. Initiating play
- D. Taking care of personal needs
- E. Relating to adults
- F. Relating to other children
- G. Resolving interpersonal conflict
- H. Understanding & expressing feelings

II. Language & Literacy

- T. Showing awareness of sounds in words
- V. Using letter names and sounds
- W. Reading
- X. Writing
- BB. Counting

III. Movement & Music

- L. Moving in various ways
- M. Moving with objects
- N. Feeling and expressing steady beat
- O. Moving to music
- P. Singing

IV. Math & Science

- AA. Comparing properties
- CC. Identifying position & direction
- DD. Identifying sequence change & causality
- EE. Identifying materials & properties
- FF. Identifying natural & living things

Child Demographics and COR & T-CRS Outcomes

2012-2013 RECAP Annual Report Comparing COR Outcomes by Gender Summary of one-way ANOVA Results (means & standard deviations shown are unadjusted data)								
Subscale	Boys			Girls			F	Effect Size
	Mean	Std. Dev.	N	Mean	Std. Dev.	N		
COR Time 1 MANOVA								
Initiative & Social	2.6	0.7	897	2.7	0.7	837	0.0	0.2
Language & Literacy	2.3	0.7	878	2.4	0.7	822	0.0	0.2
Movement & Music	2.6	0.7	895	2.8	0.7	835	0.0	0.2
Math & Science	2.1	0.8	868	2.2	0.8	817	2.8	0.1
COR Time 2 MANOVA								
Initiative & Social	3.6	0.9	745	3.8	0.8	666	14.7*	0.3
Language & Literacy	3.4	0.9	751	3.6	0.9	660	9.4*	0.3
Movement & Music	3.7	0.9	749	3.9	0.8	662	11.3*	0.3
Math & Science	3.4	1.1	738	3.6	1.0	652	3.3	0.2
COR Changes MANOVA								
Initiative & Social	1.2	0.7	643	1.2	0.7	580	1.4	0.1
Language & Literacy	1.2	0.7	623	1.3	0.7	562	1.3	0.1
Movement & Music	1.2	0.7	637	1.2	0.7	576	2.2	0.1
Math & Science	1.5	0.9	609	1.5	0.9	551	1.6	0.1
Notes * Signifies that the F values exhibited in this table are significant at $Pr(F) \leq .05$. Race/Ethnicity was included as a covariate in the above analyses.								

2012-2013 RECAP Annual Report
Comparing COR Outcomes by Race/Ethnicity
Summary of one-way ANOVA Results
(means & standard deviations shown are unadjusted data)

Subscale	Race/Ethnicity									F	SNK
	White			Black			Hispanic				
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N		
COR Time 1 MANOVA											
Initiative & Social	2.8	0.7	202	2.6	0.7	1068	2.6	0.7	459	3.4*	W>B,H
Language & Literacy	2.6	0.8	199	2.3	0.7	1045	2.2	0.7	451	19.8*	W>B,H
Movement & Music	2.8	0.8	202	2.7	0.7	1067	2.7	0.7	456	2.6	No Sig.
Math & Science	2.5	0.9	199	2.1	0.7	1039	2.0	0.8	442	22.3	W>B,H
COR Time 2 MANOVA											
Initiative & Social	3.9	0.9	203	3.7	0.9	806	3.6	0.8	362	7.0*	W>B,H
Language & Literacy	3.7	0.9	203	3.5	0.9	806	3.3	0.9	355	11.5	W>B>H
Movement & Music	3.9	0.9	204	3.8	0.8	806	3.8	0.8	354	0.9	No Sig.
Math & Science	3.8	1.0	201	3.5	1.1	792	3.4	1.1	351	12.8*	W>B,H
COR Changes MANOVA											
Initiative & Social	1.2	0.8	182	1.2	0.7	695	1.1	0.7	305	1.1	No Sig.
Language & Literacy	1.2	0.7	179	1.3	0.7	674	1.3	0.8	293	0.5	No Sig.
Movement & Music	1.2	0.8	183	1.2	0.7	695	1.3	0.7	296	1.4	No Sig.
Math & Science	1.5	0.8	178	1.5	0.9	661	1.5	1.0	284	0.4	No Sig.
Notes * Signifies that the F values exhibited in this table are significant at $Pr(F) \leq .05$. Gender was included as a covariate in the above analyses.											

2012-2013 RECAP Annual Report								
Comparing T-CRS Outcomes by Gender								
Summary of one-way ANOVA Results								
(means & standard deviations shown are unadjusted data)								
	Boys			Girls				
Subscale	Mean	Std. Dev.	N	Mean	Std. Dev.	N	F	Effect Size
T-CRS Time 1 MANOVA								
Task Orientation	26.9	6.7	894	29.7	5.8	813	2.8	0.4
Behavior Control	26.2	7.6	894	29.2	6.4	813	3.5	0.4
Assertiveness	28.5	5.6	894	29.7	5.7	813	1.6	0.2
Peer Social	28.8	5.9	894	31.3	5.0	813	0.5	0.4
T-CRS Time 2 MANOVA								
Task Orientation	28.2	6.9	910	31.3	6.2	828	39.9*	0.5
Behavior Control	27.0	7.8	910	30.0	6.7	828	30.3*	0.4
Assertiveness	30.3	5.7	910	32.1	5.5	828	11.1*	0.3
Peer Social	30.6	6.1	910	33.1	5.2	828	30.8*	0.4
T-CRS Changes MANOVA								
Task Orientation	1.4	5.5	774	1.9	5.8	712	3.0	0.1
Behavior Control	0.6	6.0	774	1.0	5.9	712	1.1	0.1
Assertiveness	2.2	5.2	774	2.6	5.3	712	0.0	0.1
Peer Social	1.8	5.3	774	2.1	5.3	712	0.5	0.1
Notes * Signifies that the F values exhibited in this table are significant at $Pr(F) \leq .05$. Race/Ethnicity was included as a covariate in the above analyses.								

2012-2013 RECAP Annual Report
Comparing T-CRS Outcomes by Race/Ethnicity
Summary of one-way ANOVA Results
(means & standard deviations shown are unadjusted data)

Subscale	Race/Ethnicity									F*	SNK
	White			Black			Hispanic				
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N		
T-CRS Time 1 MANOVA											
Task Orientation	28.1	5.9	205	28.3	6.6	1049	28.2	6.1	450	0.1	No Sig.
Behavior Control	27.3	6.4	205	27.8	7.4	1049	27.4	7.1	450	0.8	No Sig.
Assertiveness	28.2	5.5	205	29.3	5.7	1049	29.0	5.5	450	3.7*	W>H
Peer Social	29.2	5.6	205	30.0	5.9	1049	30.2	5.2	450	2.5	No Sig.
T-CRS Time 2 MANOVA											
Task Orientation	30.8	6.3	208	29.4	7.0	1002	29.5	6.4	472	4.2*	W>H,B
Behavior Control	29.0	7.3	208	28.2	7.7	1002	28.3	7.1	472	1.7	No Sig.
Assertiveness	31.3	5.6	208	31.3	5.8	1002	30.8	5.4	472	1.6	No Sig.
Peer Social	32.3	6.0	208	31.7	5.9	1002	31.7	5.5	472	1.2	No Sig.
T-CRS Changes MANOVA											
Task Orientation	3.0	5.2	186	1.2	5.9	873	1.9	5.3	382	8.7*	W>H,B
Behavior Control	2.1	5.3	186	0.4	6.3	873	1.1	5.5	382	7.5*	W>H,B
Assertiveness	3.2	5.9	186	2.2	5.2	873	2.2	4.9	382	3.4*	W>B,H
Peer Social	3.3	5.5	186	1.7	5.5	873	1.8	4.8	382	7.4*	W>H,B
Notes * Signifies that the F values exhibited in this table are significant at $Pr(F) \leq .05$. Gender was included as a covariate in the above analyses.											

Expected Developmental Growth for Rochester Pre-K Students on the COR

This year, RECAP conducted an analysis of students' COR scores to determine how much of the growth on the COR could be accounted for by increase in age alone. In other words, what increase in COR scores would a child who was not in pre-k show in a ten-month period (September to June) due purely to their being older. Currently, HighScope, the authors of the COR, have not released any information regarding the extent of growth that the COR would show for a "typically developing" child. Therefore, RECAP assessed how much a typically developing child in the Rochester area would grow with regard to the COR in ten months.

In order to determine the expected amount of developmental growth a child would show on the COR, a linear regression was used to quantify the relationship between students' ages in the fall and their scores on the four COR domains and the overall COR score. Students' scores in the fall reflect their development prior to receiving or having only received limited pre-k instruction (i.e. they have not received the "intervention" of pre-k). Students ranged from 3.5 years old to 5.0 years old at the time of fall administration of the COR. The linear regression provided the average number of points that a child gained per month on the COR subscales. These quantities were multiplied by ten to represent the estimated growth over the course of a ten-month school year. The results of the linear regression are presented below.

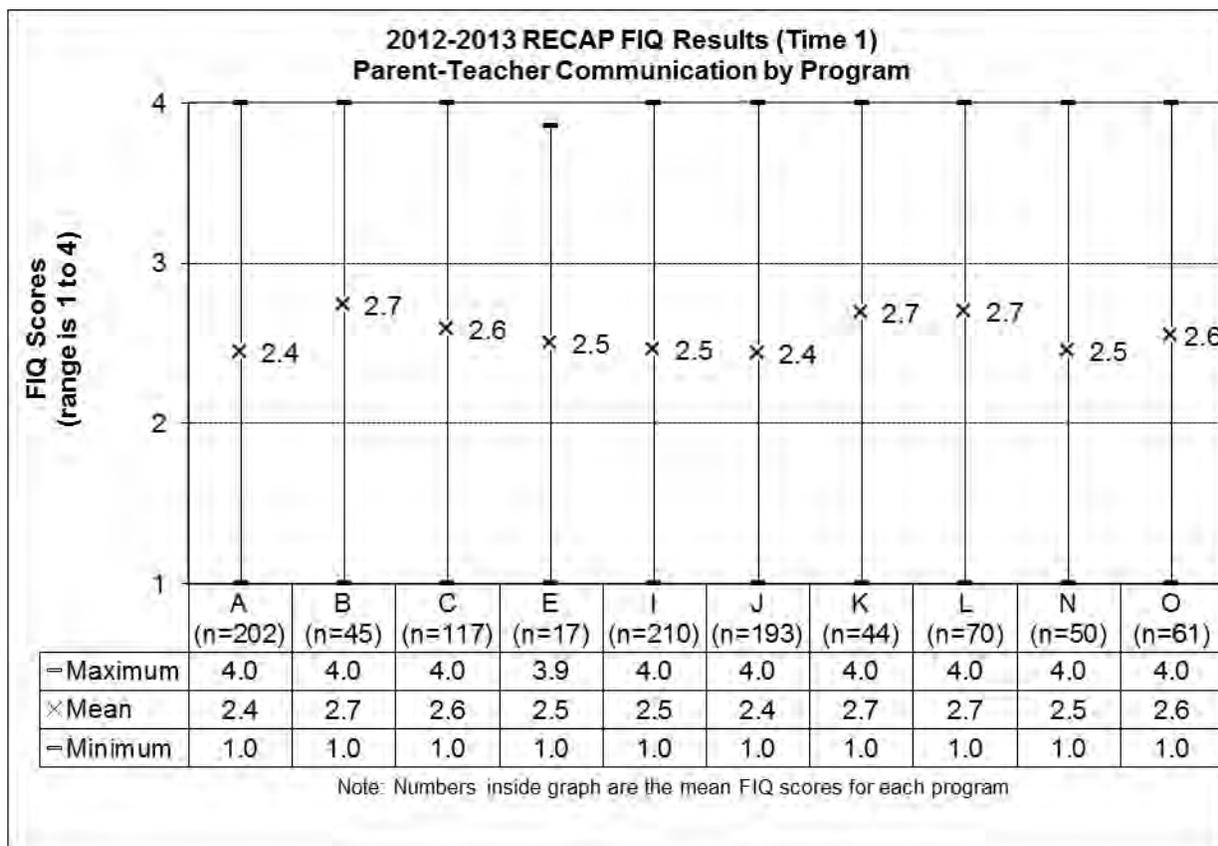
2012-2013 RECAP Annual Report			
Comparing COR Scores in the Fall with Child's Age in Months			
Summary of Linear Regression Results			
10 Months of Developmental Growth in the COR			
	B Coefficient	95% Confidence Intervals	
		Lower Bound	Upper Bound
Initiative & Social	0.31	0.23	0.40
Language & Literacy	0.40	0.31	0.49
Movement & Music	0.32	0.23	0.42
Math & Science	0.39	0.29	0.48
Overall	0.36	0.28	0.44

Based on analyses of the 2012-2013 cohort, it is conservatively estimated that children in Rochester are expected to gain close to .50 points on each of the COR scales over the course of school year, due to development alone (using a 95% confidence interval). It can be reasoned that any gain beyond .50 points is due to changes from participation in classroom instruction. As was stated previously, only children from the Rochester area were used as part of this analysis, so the results of the analysis cannot readily be extrapolated to other populations or age ranges.

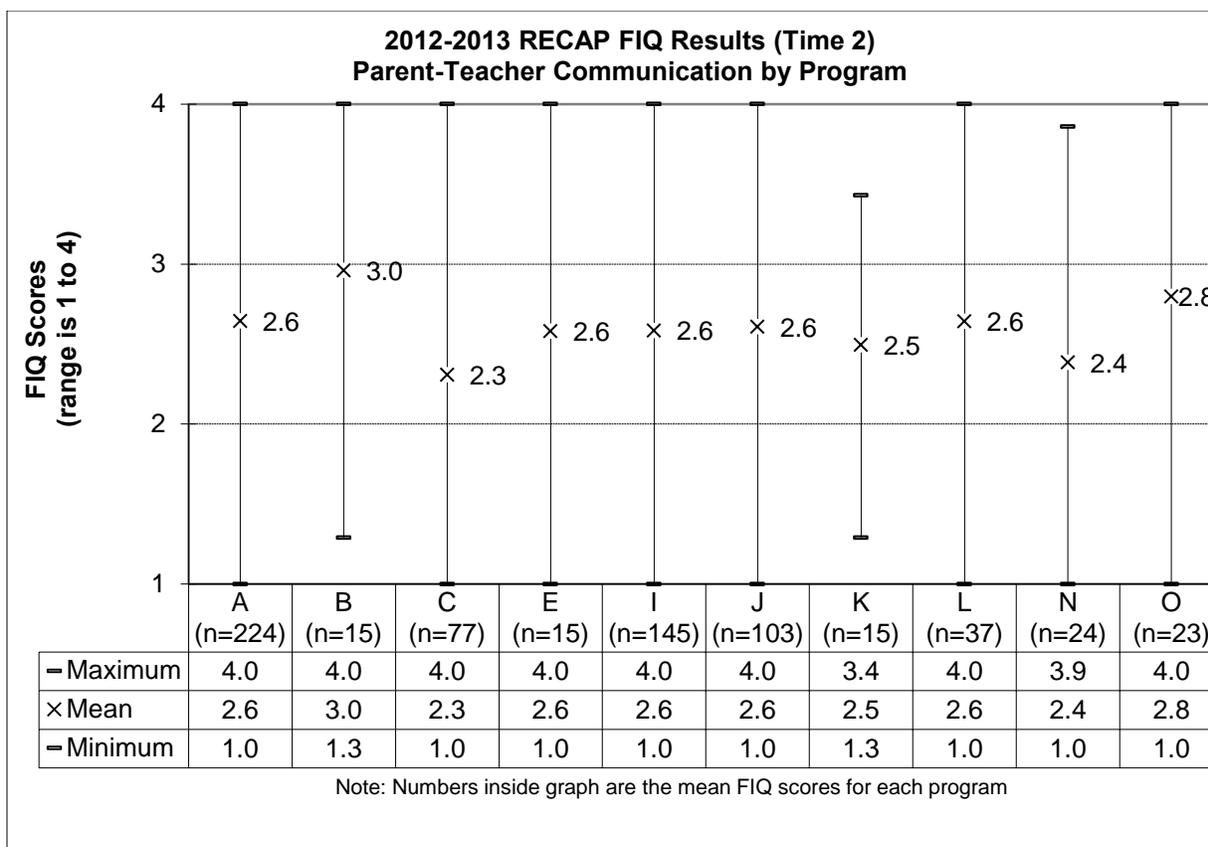
Appendix F: Parent Perspectives – Additional Results

FIQ

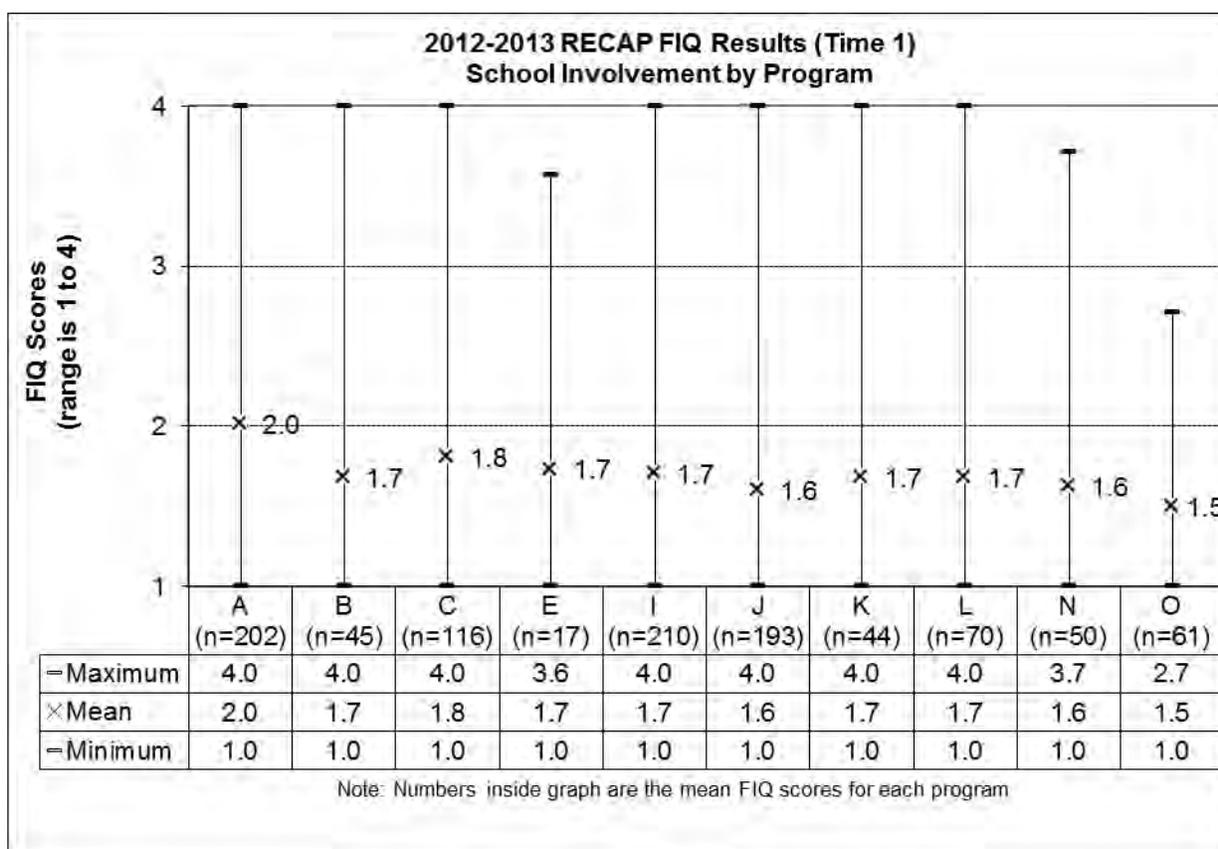
FIQ Results by Subscale and Program



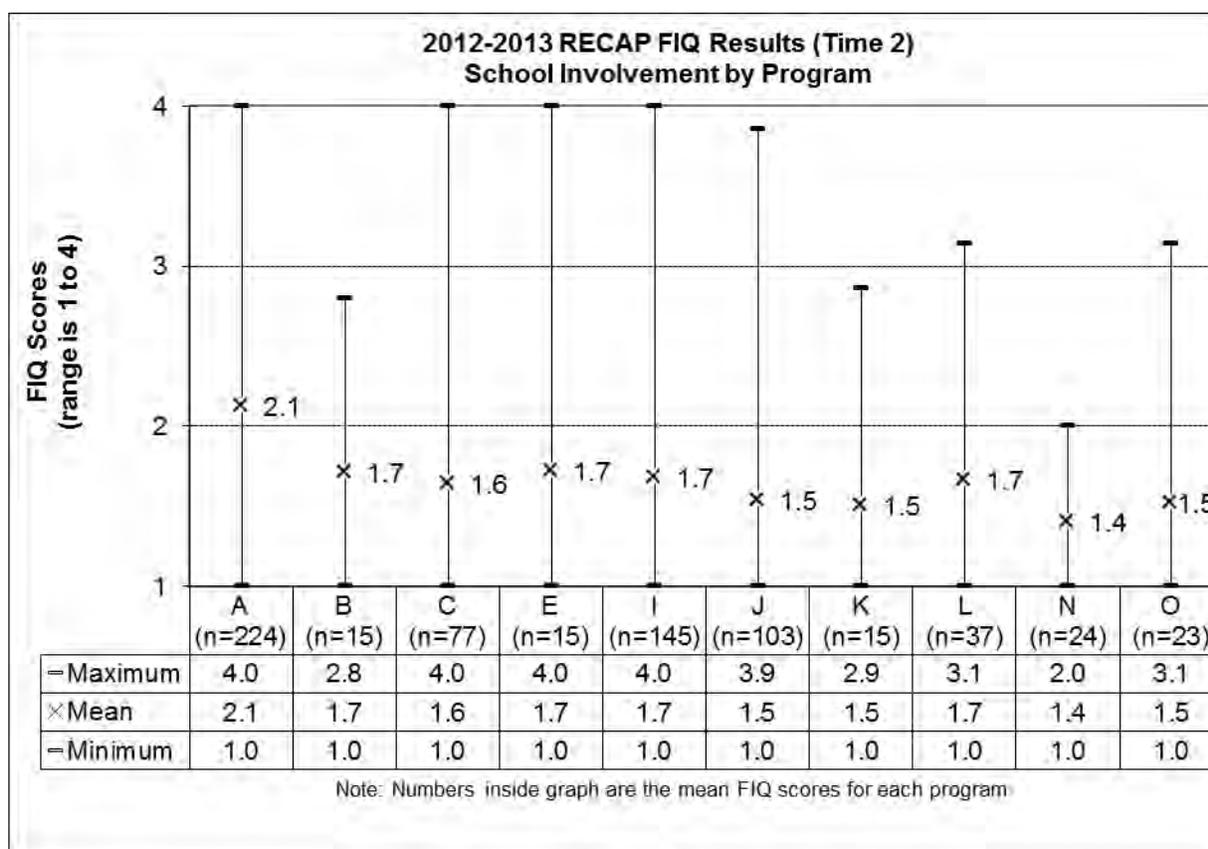
Parent-Teacher Communication (Time 1) - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	55	9	29	5	60	57	10	12	14	14	265	26.3%
2-2.9	85	15	42	5	79	80	14	28	20	26	394	39.0%
3-3.9	49	18	39	7	59	46	14	26	12	19	289	28.6%
4.0	13	3	7	0	12	10	6	4	4	2	61	6.0%
Total	202	45	117	17	210	193	44	70	50	61	1009	100.0%



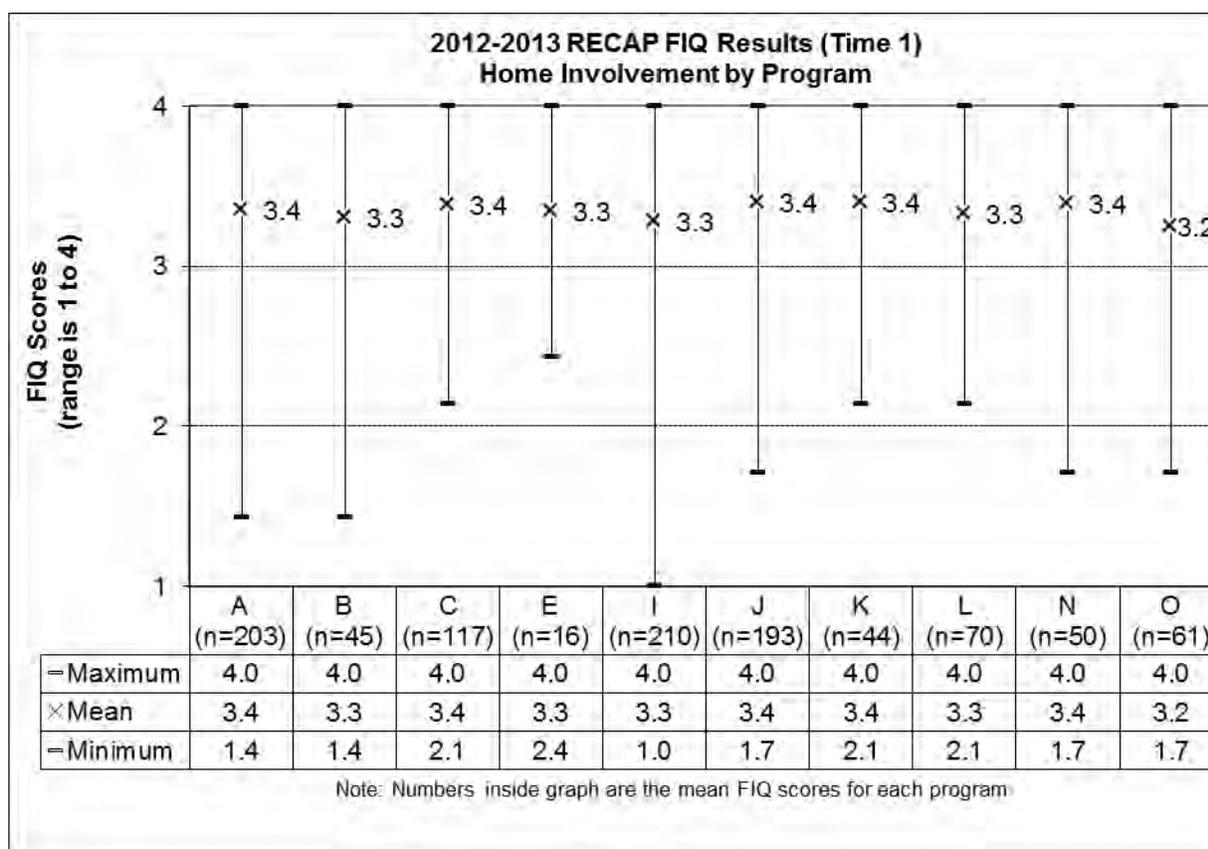
Parent-Teacher Communication (Time 2)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	48	3	30	4	41	22	4	4	8	5	169	24.9%
2-2.9	85	3	26	6	52	39	6	18	9	7	251	37.0%
3-3.9	71	6	19	4	44	38	5	14	7	9	217	32.0%
4.0	20	3	2	1	8	4	0	1	0	2	41	6.0%
Total	224	15	77	15	145	103	15	37	24	23	678	100.0%



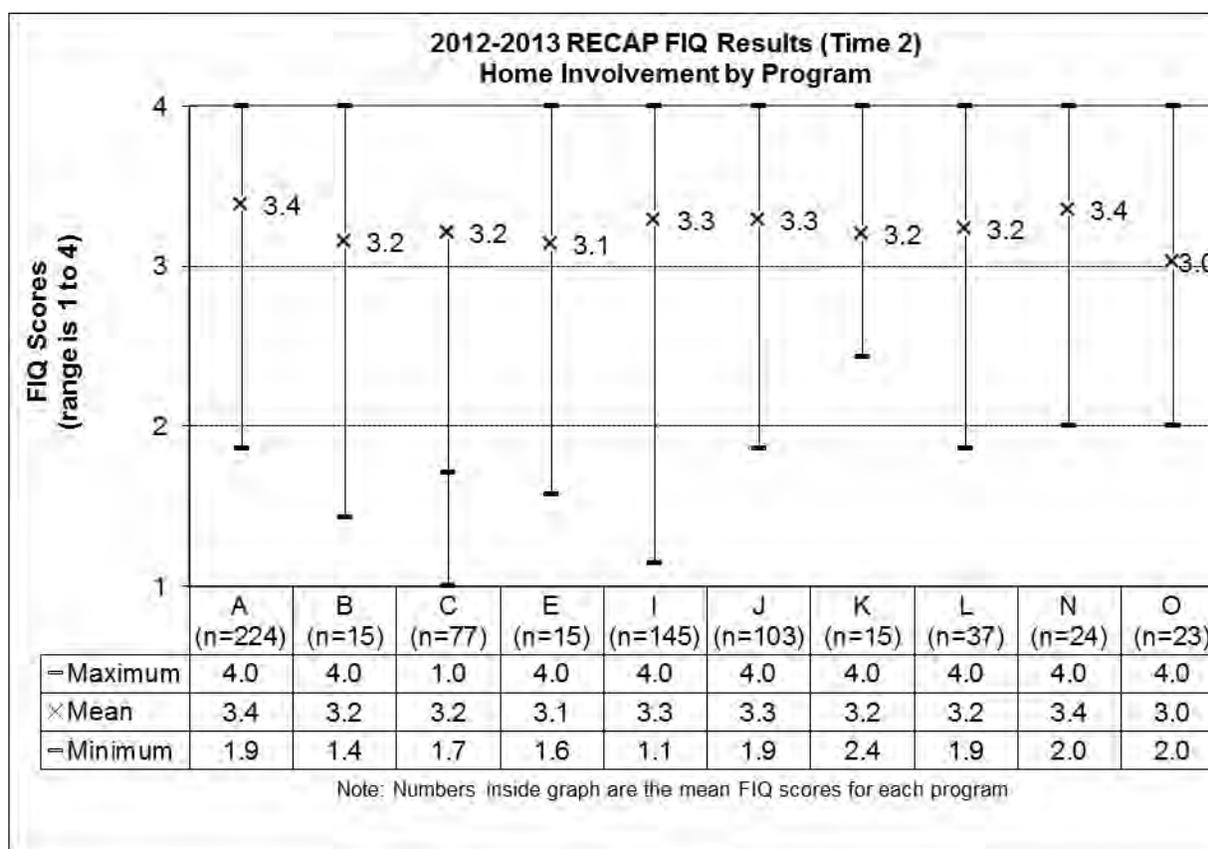
School Involvement (Time 1) - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	107	31	70	13	147	156	32	52	39	48	695	68.9%
2-2.9	66	13	41	3	48	29	9	12	10	13	244	24.2%
3-3.9	25	0	4	1	14	7	2	5	1	0	59	5.9%
4.0	4	1	1	0	1	1	1	1	0	0	10	1.0%
Total	202	45	116	17	210	193	44	70	50	61	1008	100.0%



School Involvement (Time 2) - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	103	10	61	11	101	84	12	25	21	18	446	65.8%
2-2.9	79	5	11	2	40	16	3	10	3	3	172	25.4%
3-3.9	38	0	2	1	3	3	0	2	0	2	51	7.5%
4.0	4	0	3	1	1	0	0	0	0	0	9	1.3%
Total	224	15	77	15	145	103	15	37	24	23	678	100.0%



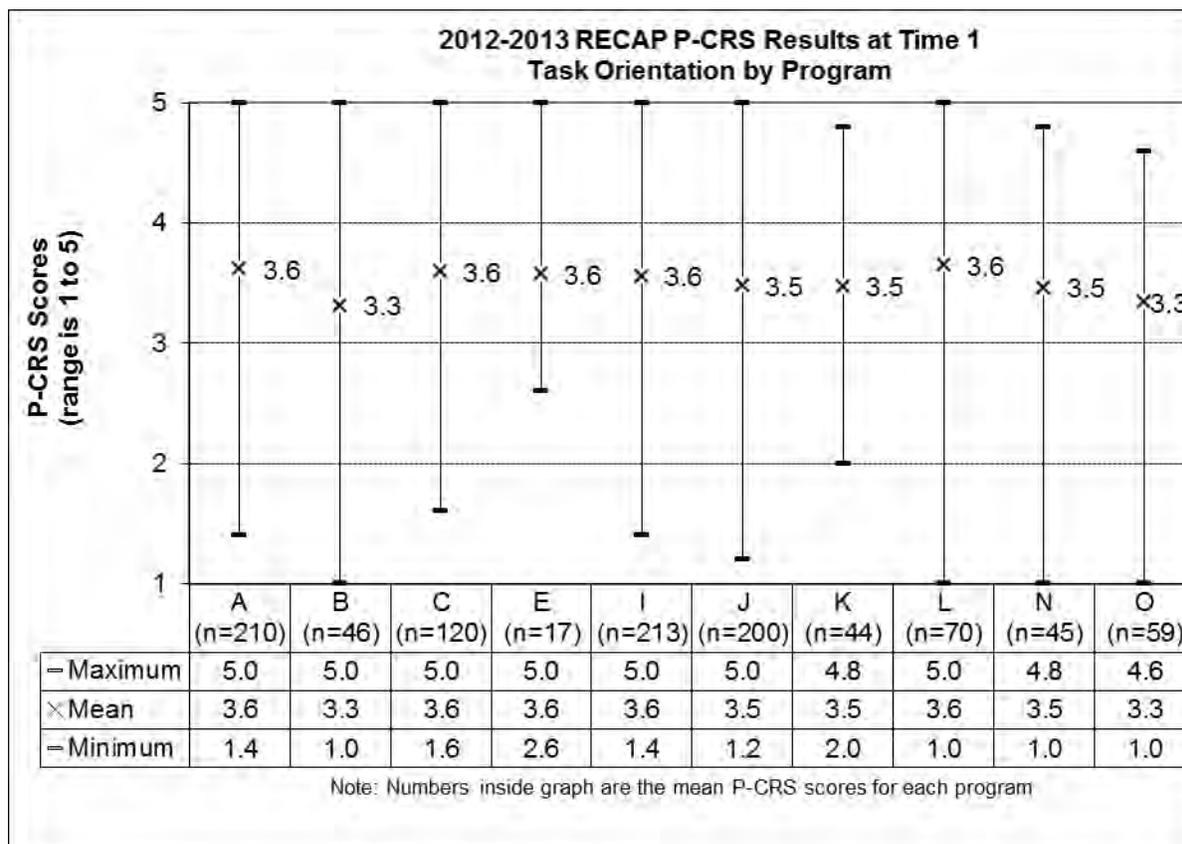
Home Involvement (Time 1) - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	3	1	0	0	2	1	0	0	1	3	11	1.1%
2-2.9	36	8	21	3	52	34	8	16	6	15	199	19.7%
3-3.9	137	33	82	11	126	131	30	43	36	35	664	65.8%
4.0	27	3	14	2	30	27	6	11	7	8	135	13.4%
Total	203	45	117	16	210	193	44	70	50	61	1009	100.0%



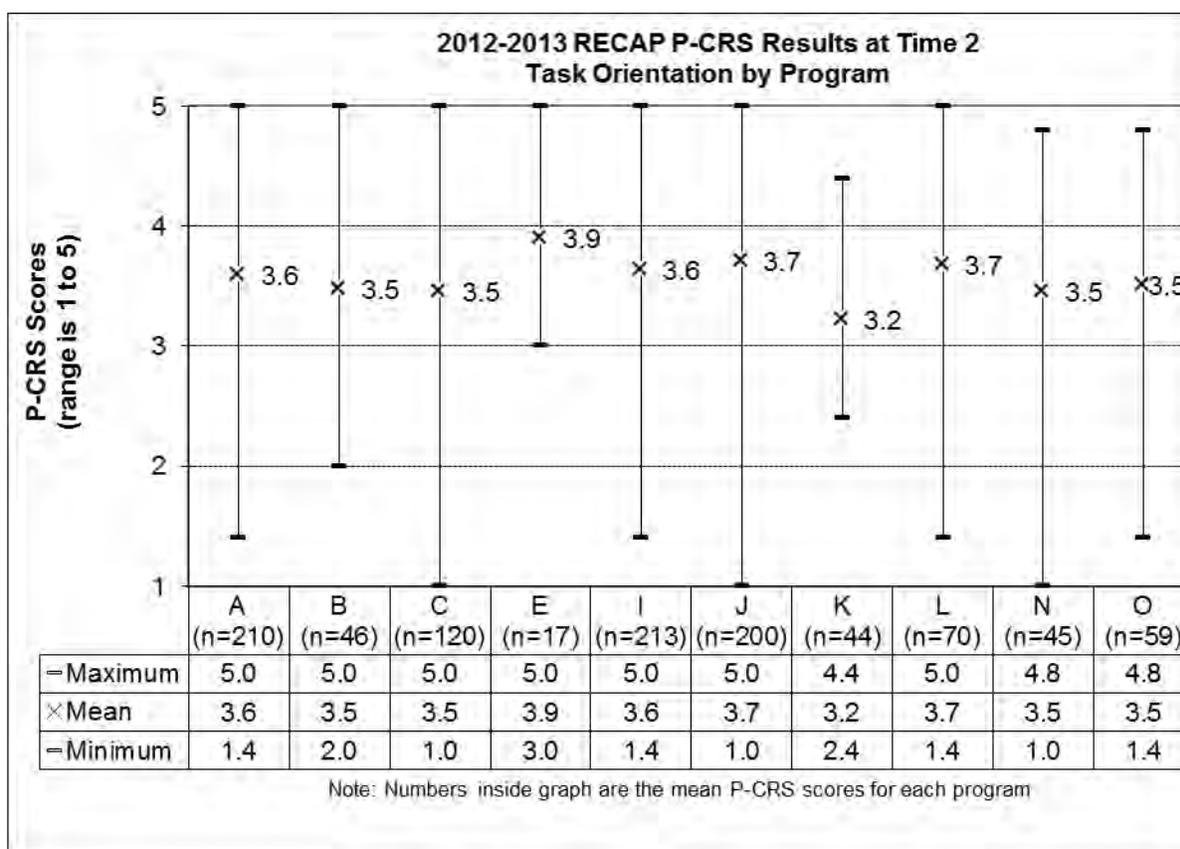
Home Involvement (Time 2)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	1	1	1	2	4	1	0	1	0	0	11	1.6%
2-2.9	44	3	21	2	33	28	4	8	4	10	157	23.2%
3-3.9	144	9	47	10	88	60	9	25	16	10	418	61.7%
4.0	35	2	8	1	20	14	2	3	4	3	92	13.6%
Total	224	15	77	15	145	103	15	37	24	23	678	100.0%

P-CRS

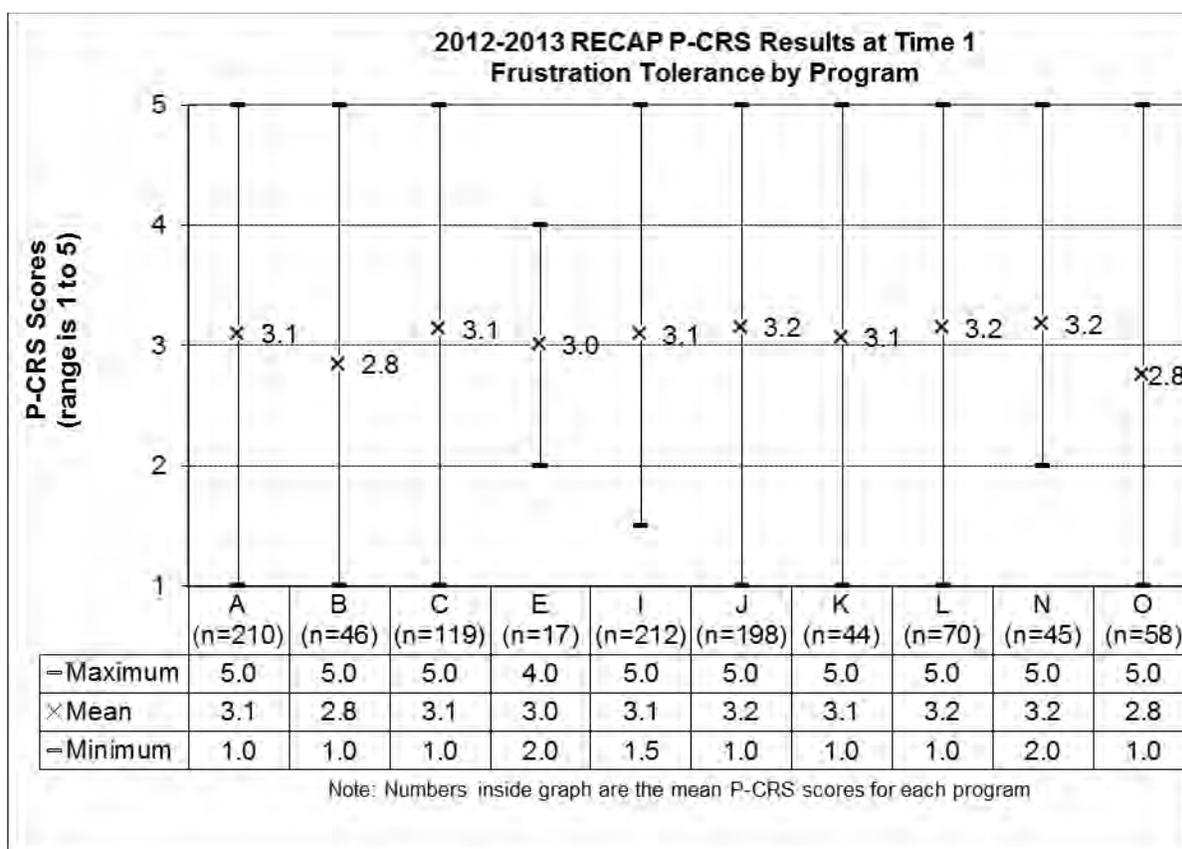
P-CRS Results by Subscale and Program



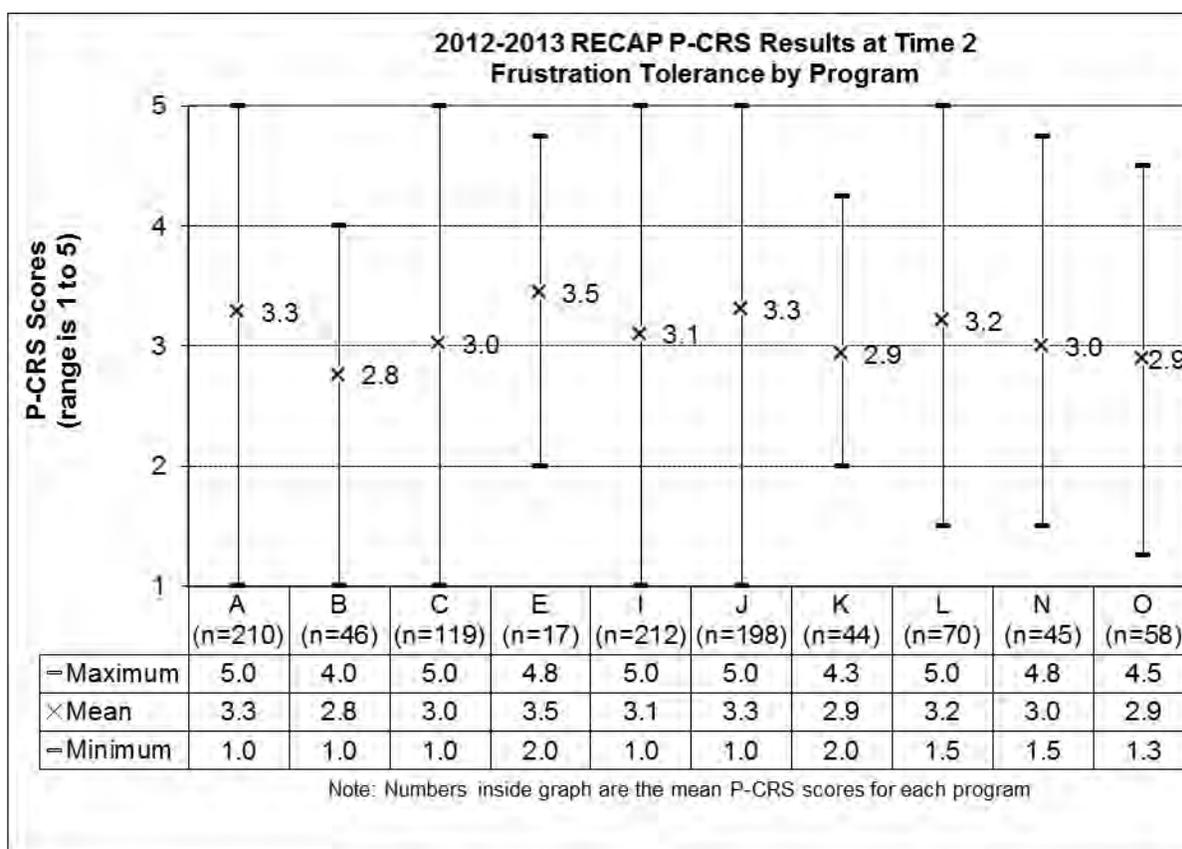
Task Orientation (Time 1) - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	2	3	2	0	5	10	0	3	5	3	33	3.2%
2-2.9	31	13	22	3	33	36	6	6	2	11	163	15.9%
3-3.9	93	18	53	9	100	82	28	35	24	31	473	46.2%
4-4.9	79	10	34	4	67	63	10	25	14	14	320	31.3%
5.0	5	2	9	1	8	9	0	1	0	0	35	3.4%
Total	210	46	120	17	213	200	44	70	45	59	1024	100.0%



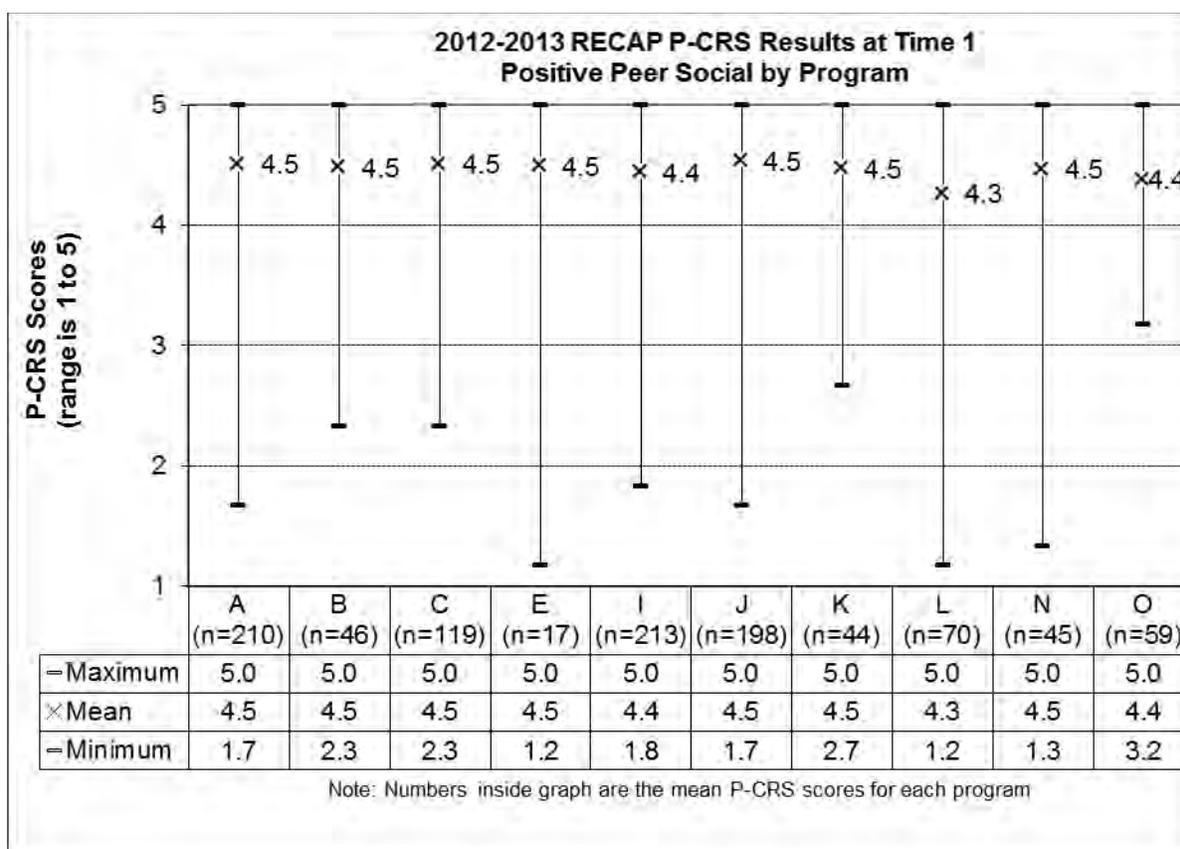
Task Orientation (Time 2) - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	4	0	6	0	2	2	0	1	2	1	18	2.6%
2-2.9	31	4	11	0	22	13	7	5	1	3	97	14.1%
3-3.9	107	6	33	7	62	44	6	18	16	13	312	45.2%
4-4.9	79	4	24	7	54	40	3	15	5	7	238	34.5%
5.0	6	1	4	1	5	5	0	3	0	0	25	3.6%
Total	227	15	78	15	145	104	16	42	24	24	690	100.0%



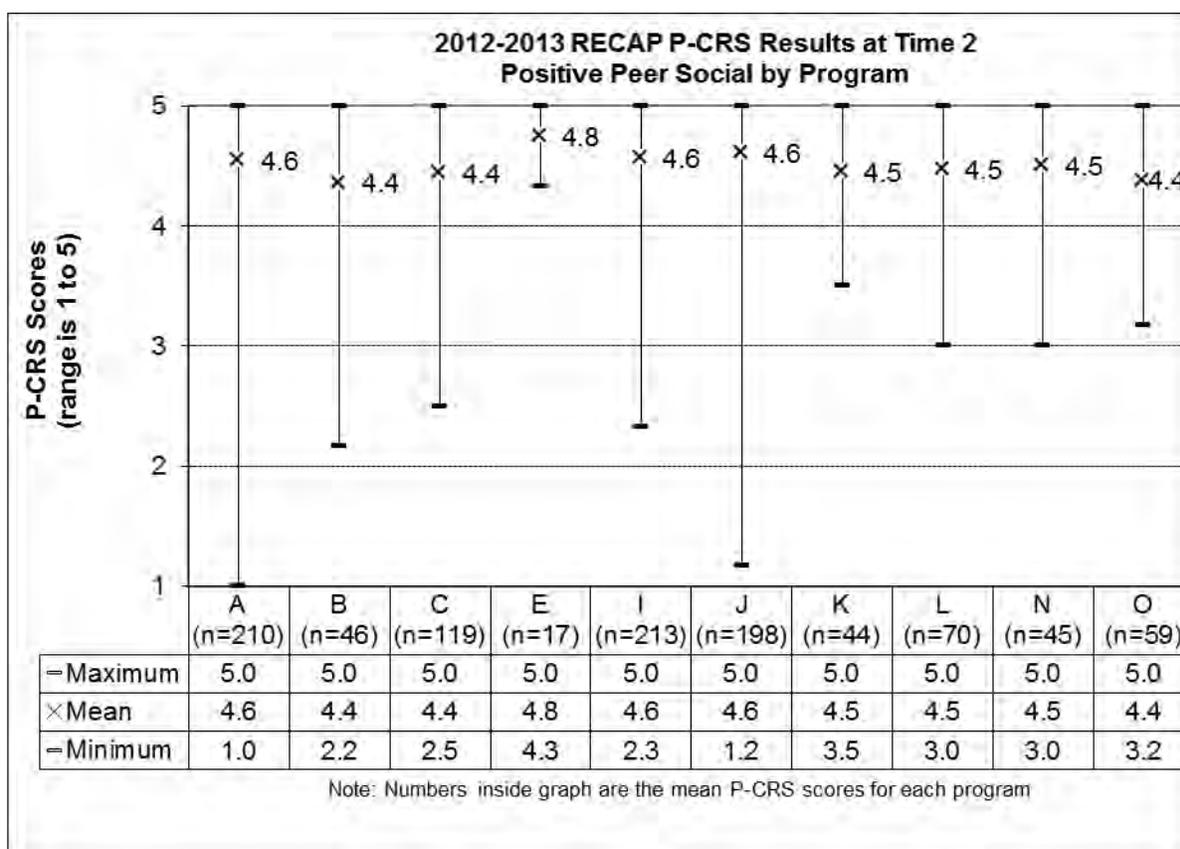
Frustration Tolerance (Time 1)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	17	6	9	0	9	18	3	2	0	9	73	7.2%
2-2.9	70	15	31	7	69	53	14	23	14	21	317	31.1%
3-3.9	85	20	55	9	102	88	21	32	22	25	459	45.0%
4-4.9	36	4	21	1	29	34	4	11	8	2	150	14.7%
5.0	2	1	3	0	3	5	2	2	1	1	20	2.0%
Total	210	46	119	17	212	198	44	70	45	58	1019	100.0%



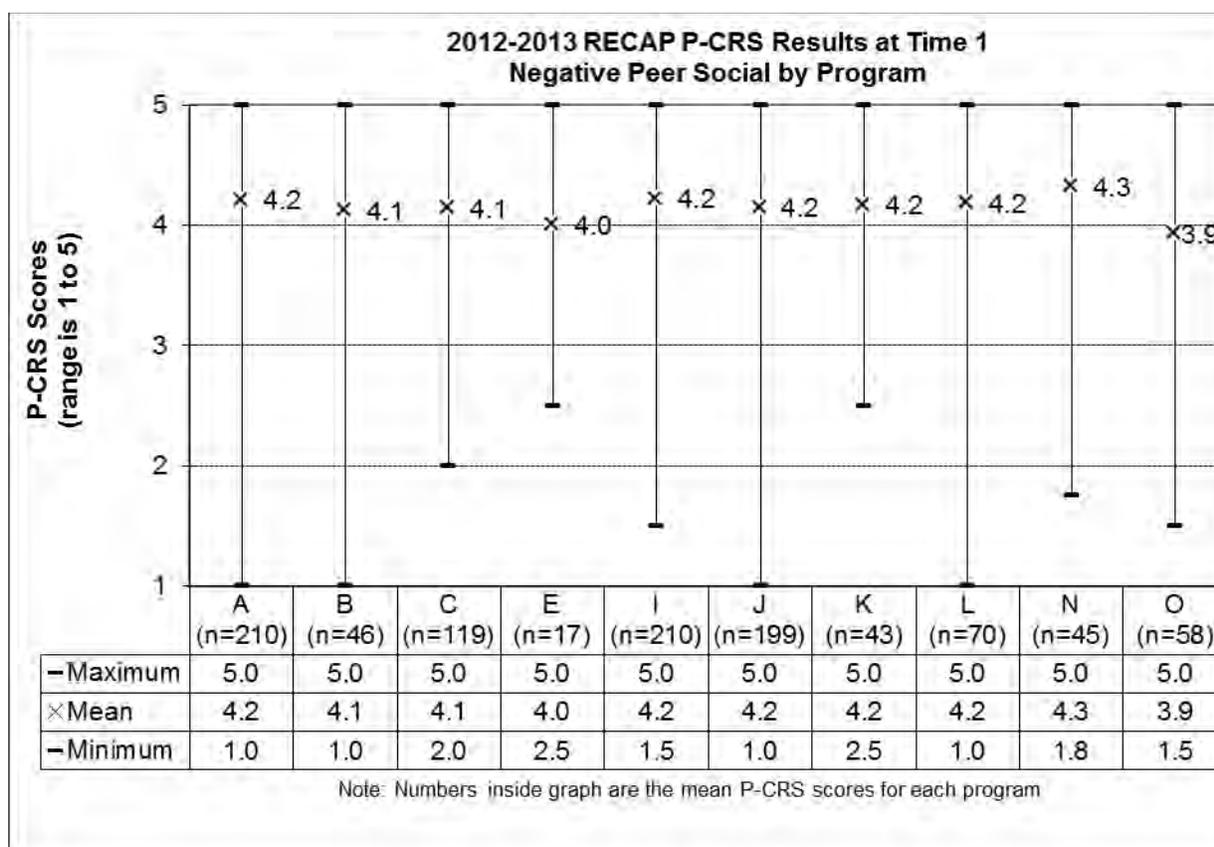
Frustration Tolerance (Time 2) - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	13	1	8	0	6	7	0	2	3	2	42	6.1%
2-2.9	48	6	21	3	50	22	6	11	7	11	185	26.9%
3-3.9	103	7	35	9	66	50	9	21	11	9	320	46.6%
4-4.9	51	1	11	3	20	20	1	7	3	2	119	17.3%
5.0	9	0	3	0	3	5	0	1	0	0	21	3.1%
Total	224	15	78	15	145	104	16	42	24	24	687	100.0%



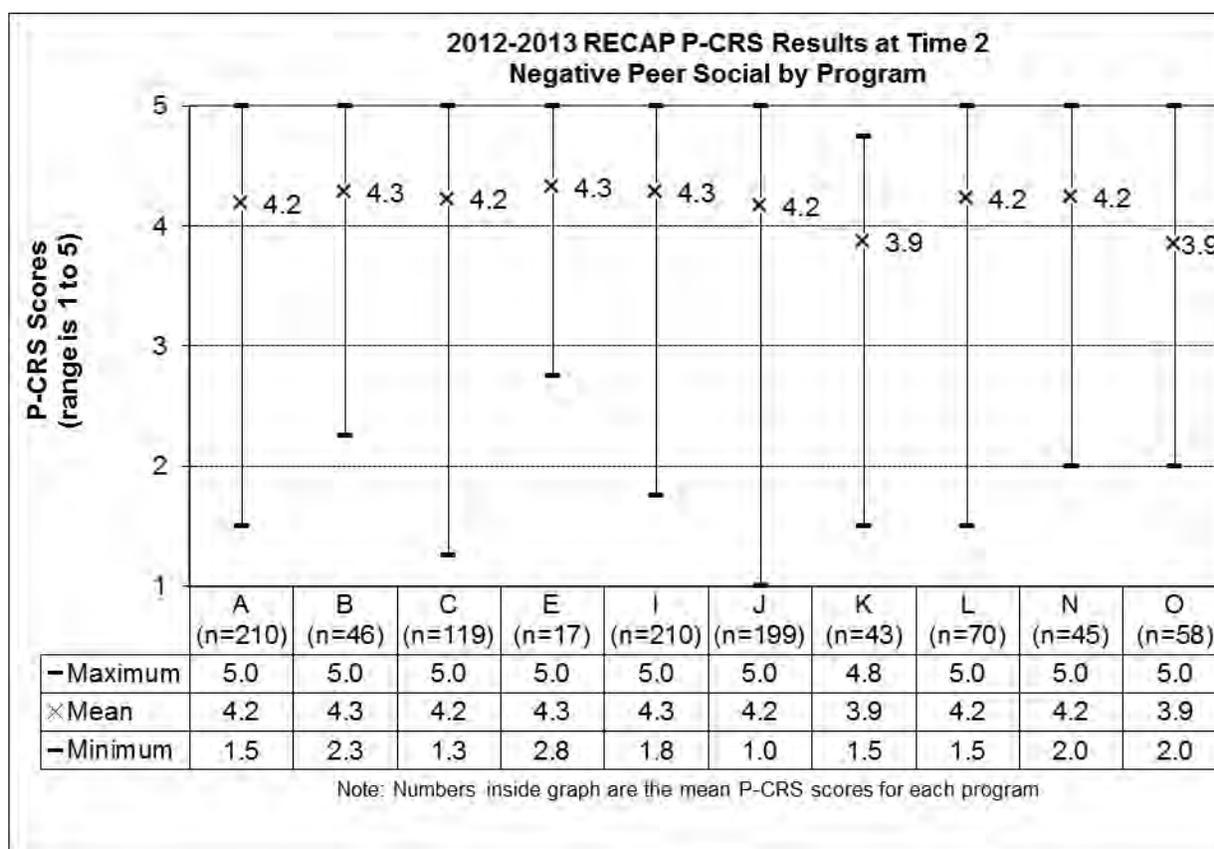
Positive Peer Social (Time 1) - Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	2	0	0	1	1	1	0	1	1	0	7	0.7%
2-2.9	1	2	2	0	4	2	1	3	1	0	16	1.6%
3-3.9	24	6	14	0	32	22	7	14	3	14	136	13.3%
4-4.9	112	24	68	8	119	97	24	40	28	31	551	54.0%
5.0	71	14	35	8	57	76	12	12	12	14	311	30.5%
Total	210	46	119	17	213	198	44	70	45	59	1021	100.0%



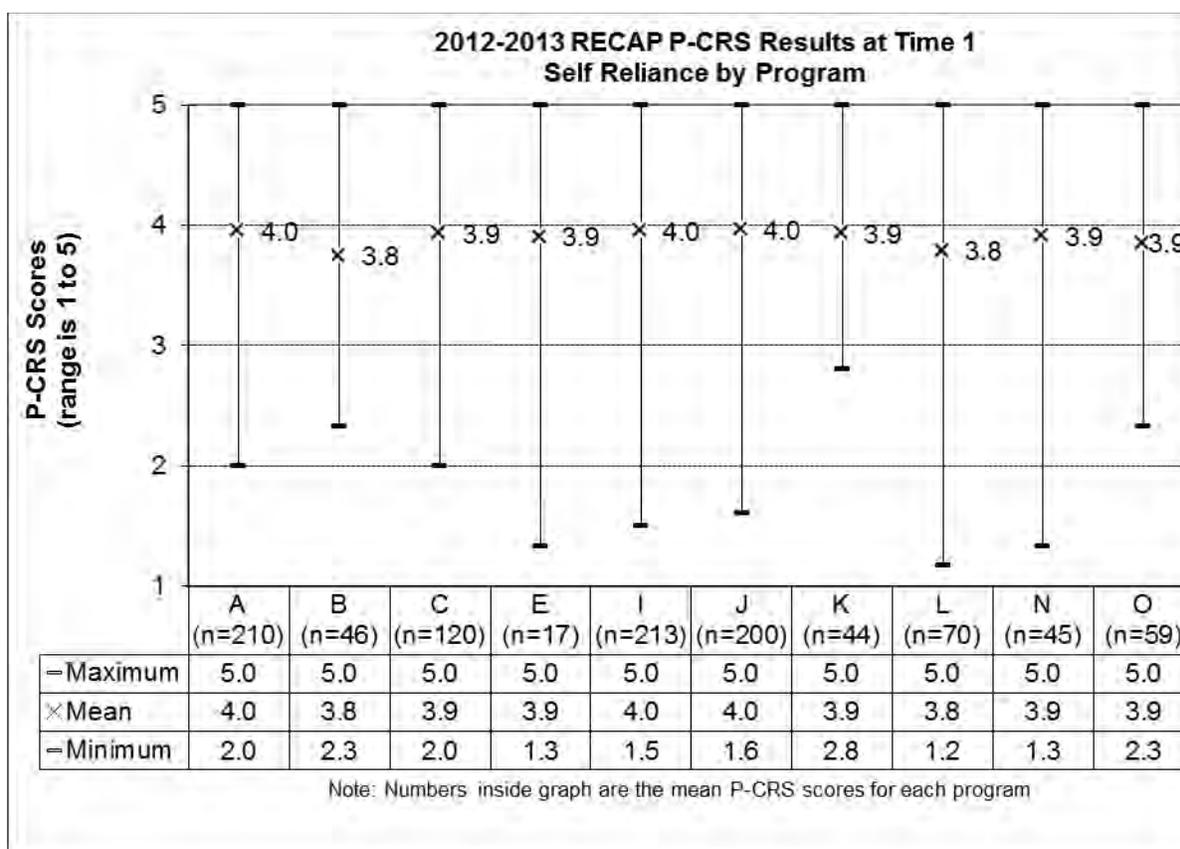
Positive Peer Social (Time 2)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	2	0	0	0	0	1	0	0	0	0	3	0.4%
2-2.9	0	1	2	0	2	1	0	0	0	0	6	0.9%
3-3.9	22	2	10	0	13	8	2	5	5	7	74	10.7%
4-4.9	115	6	43	9	80	49	10	21	10	9	352	51.0%
5.0	88	6	23	6	50	45	4	16	9	8	255	37.0%
Total	227	15	78	15	145	104	16	42	24	24	690	100.0%



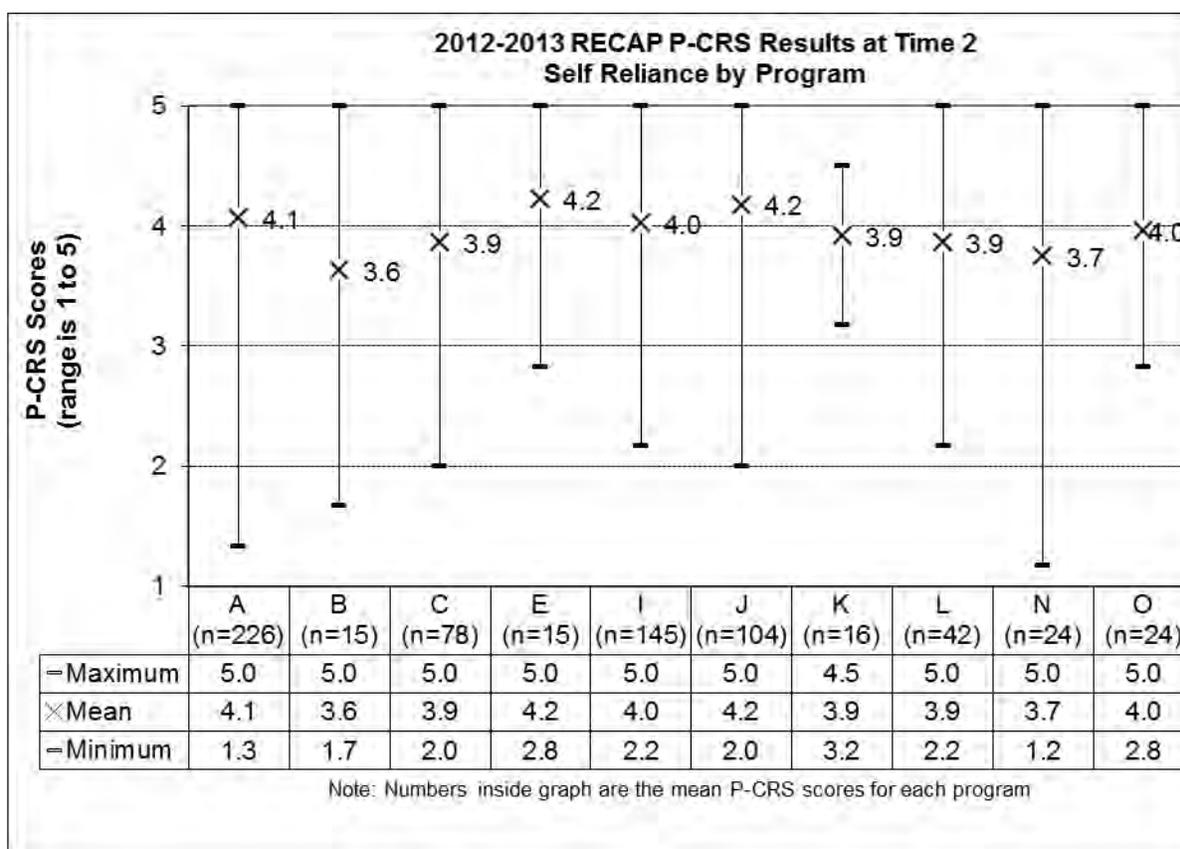
Negative Peer Social (Time 1)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	1	1	0	0	1	2	0	1	1	1	8	0.8%
2-2.9	14	1	7	1	10	17	2	4	1	3	60	5.9%
3-3.9	42	15	35	7	50	40	12	13	8	22	244	24.0%
4-4.9	102	15	47	5	103	85	20	33	21	21	452	44.4%
5.0	51	14	30	4	46	55	9	19	14	11	253	24.9%
Total	210	46	119	17	210	199	43	70	45	58	1017	100.0%



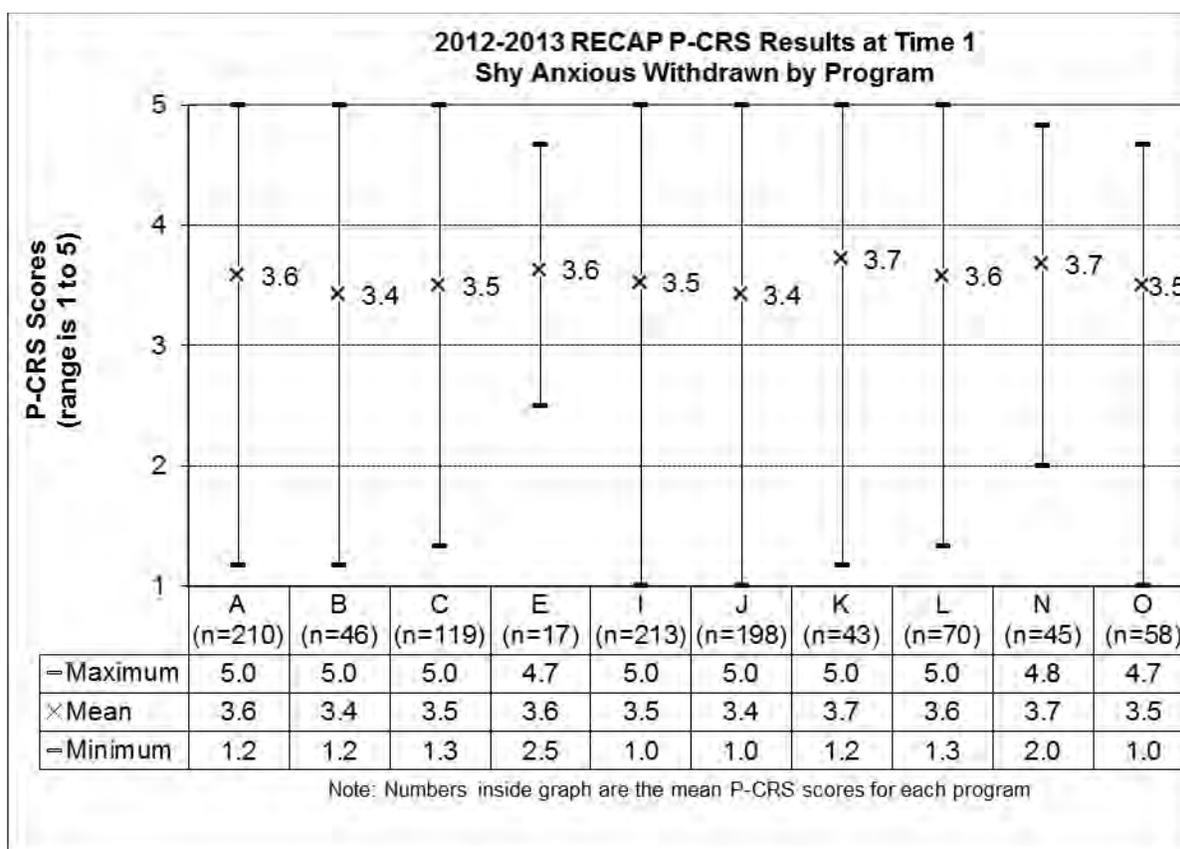
Negative Peer Social (Time 2)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	2	0	1	0	1	3	1	1	0	0	9	1.3%
2-2.9	12	1	3	1	1	4	1	1	1	4	29	4.2%
3-3.9	51	2	17	1	36	25	5	7	8	7	159	23.1%
4-4.9	101	7	37	10	70	42	9	21	10	9	316	45.9%
5.0	60	5	20	3	37	30	0	12	5	4	176	25.5%
Total	226	15	78	15	145	104	16	42	24	24	689	100.0%



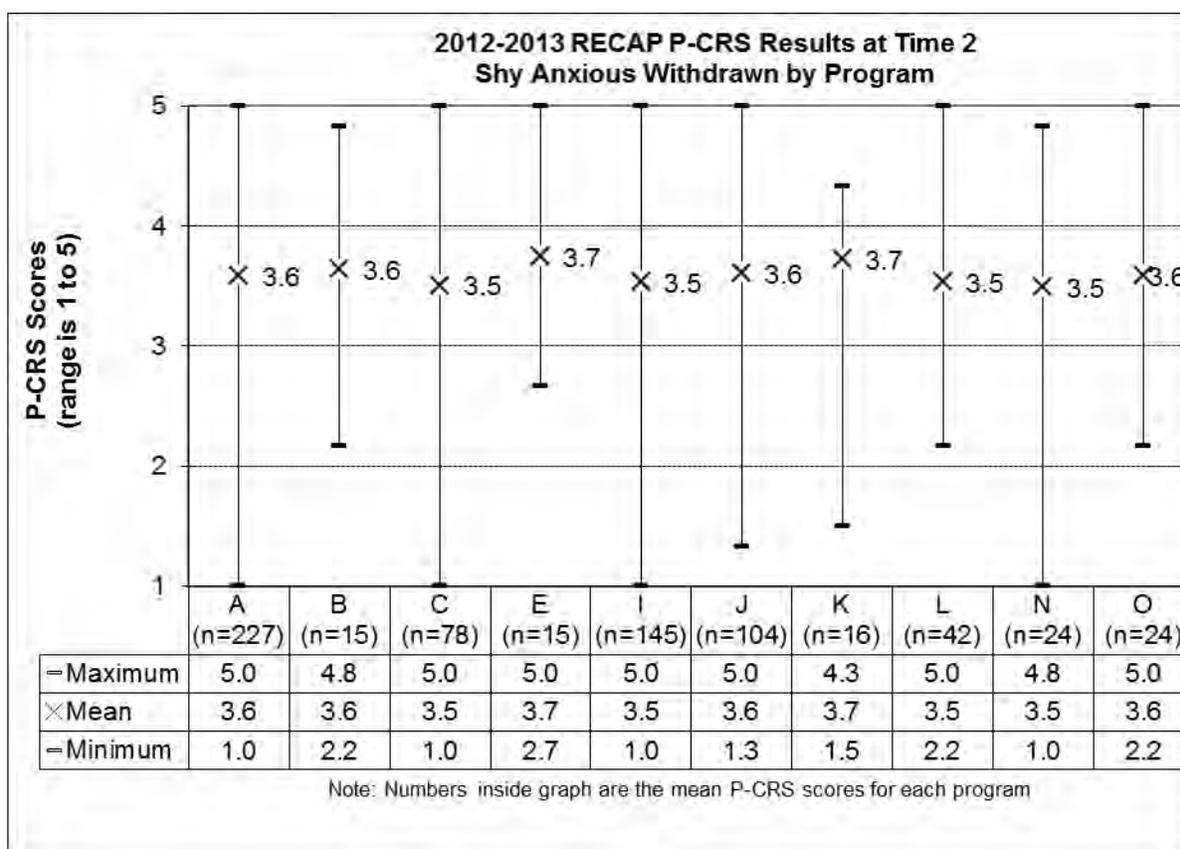
Self Reliance (Time 1)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	0	0	0	1	2	1	0	2	2	0	8	0.8%
2-2.9	15	6	8	0	13	15	1	6	2	7	73	7.1%
3-3.9	81	23	49	6	82	76	19	29	16	28	409	39.9%
4-4.9	101	15	54	9	106	91	23	26	23	22	470	45.9%
5.0	13	2	9	1	10	17	1	7	2	2	64	6.3%
Total	210	46	120	17	213	200	44	70	45	59	1024	100.0%



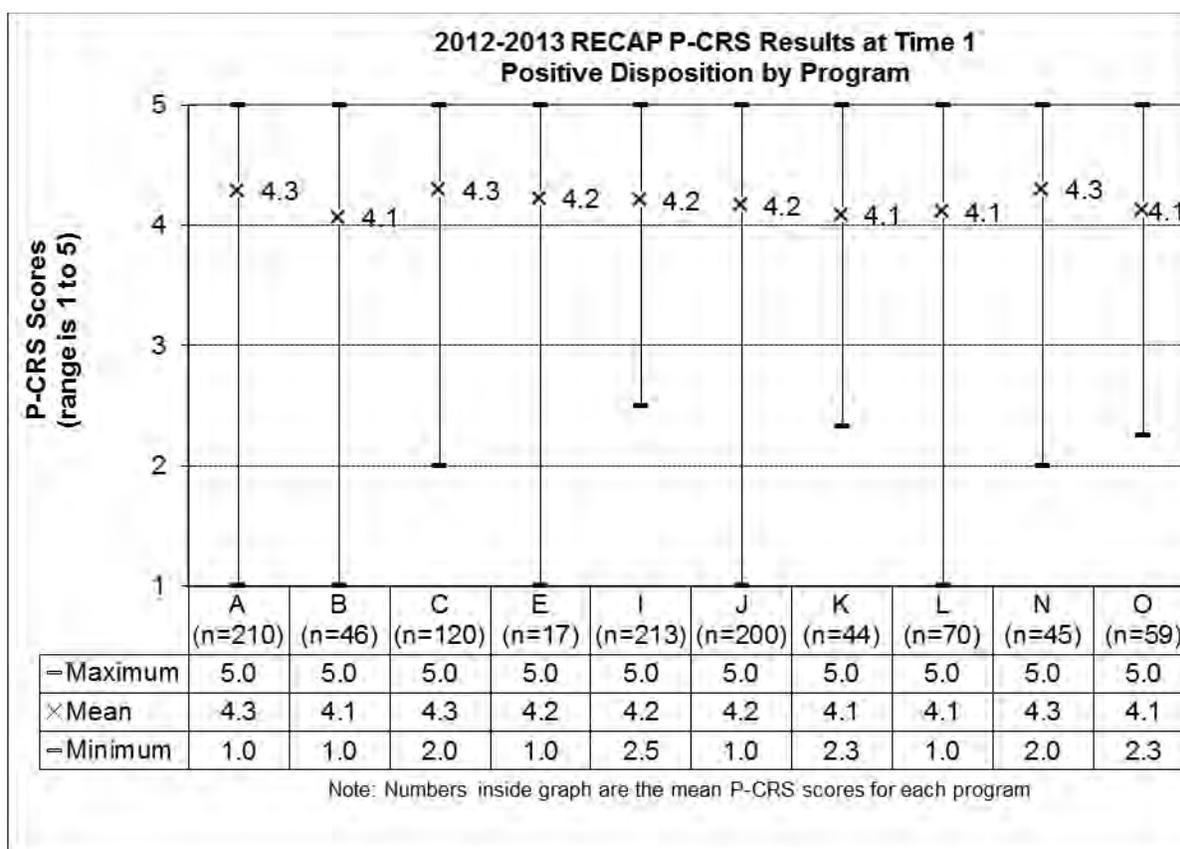
Self Reliance (Time 2)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	1	1	0	0	0	0	0	0	2	0	4	0.6%
2-2.9	12	3	11	1	11	5	0	1	1	2	47	6.8%
3-3.9	70	4	24	3	49	26	7	23	11	10	227	32.9%
4-4.9	124	6	37	9	75	56	9	17	9	8	350	50.8%
5.0	19	1	6	2	10	17	0	1	1	4	61	8.9%
Total	226	15	78	15	145	104	16	42	24	24	689	100.0%



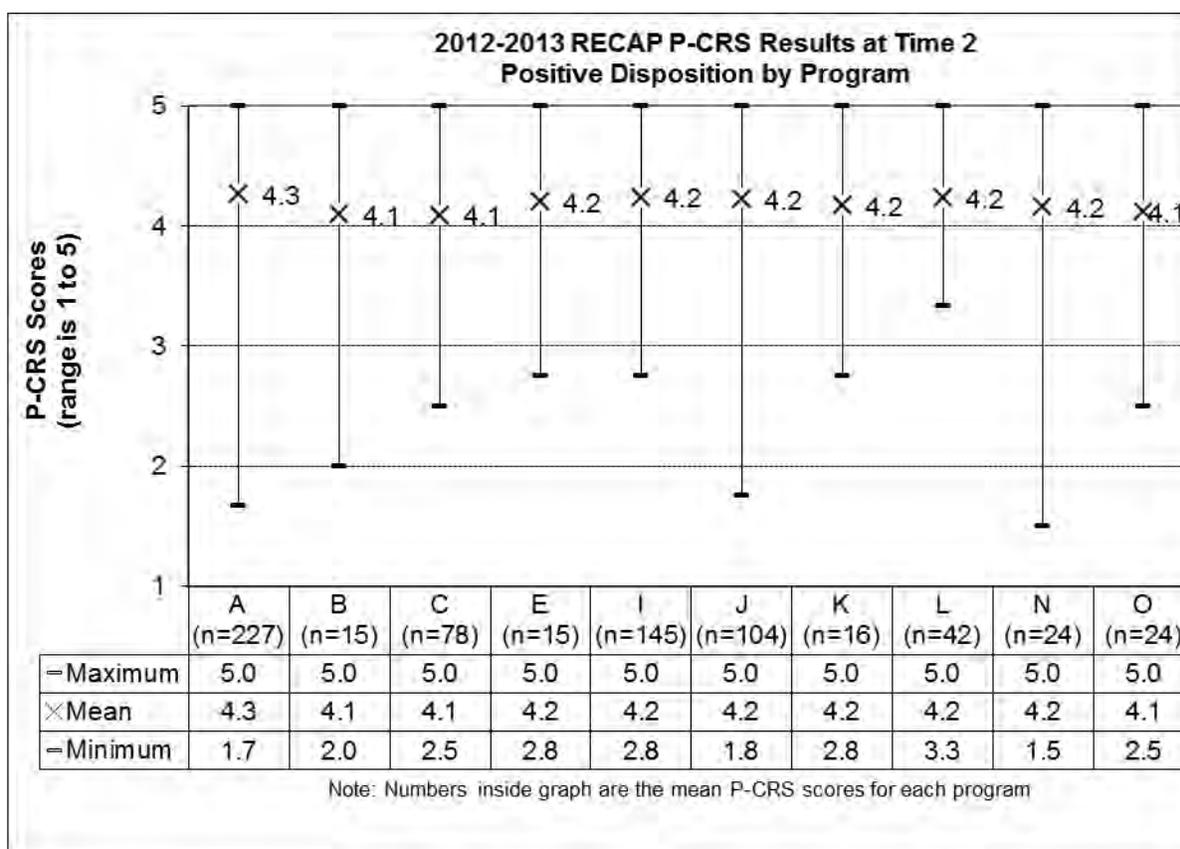
Shy Anxious Withdrawn (Time 1)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	6	3	4	0	6	10	3	2	0	1	35	3.4%
2-2.9	36	9	17	2	39	41	3	11	9	12	179	17.6%
3-3.9	94	19	66	10	100	86	14	32	16	23	460	45.1%
4-4.9	63	14	25	5	64	52	20	21	20	22	306	30.0%
5.0	11	1	7	0	4	9	3	4	0	0	39	3.8%
Total	210	46	119	17	213	198	43	70	45	58	1019	100.0%



Shy Anxious Withdrawn (Time 2)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	8	0	4	0	3	4	1	0	2	0	22	3.2%
2-2.9	38	3	14	2	30	23	1	9	3	5	128	18.6%
3-3.9	98	5	35	7	65	35	4	17	11	12	289	41.9%
4-4.9	73	7	15	4	43	33	10	14	8	5	212	30.7%
5.0	10	0	10	2	4	9	0	2	0	2	39	5.7%
Total	227	15	78	15	145	104	16	42	24	24	690	100.0%



Positive Disposition (Time 1)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	3	2	0	1	0	2	0	1	0	0	9	0.9%
2-2.9	2	0	4	0	3	5	1	2	2	5	24	2.3%
3-3.9	33	11	21	4	61	49	15	19	6	12	231	22.6%
4-4.9	128	27	65	6	108	109	21	39	25	31	559	54.6%
5.0	44	6	30	6	41	35	7	9	12	11	201	19.6%
Total	210	46	120	17	213	200	44	70	45	59	1024	100.0%



Positive Disposition (Time 2)- Number of Classrooms Within Score Range by Program												
Score Range	A	B	C	E	I	J	K	L	N	O	Total	Percent
1-1.9	1	0	0	0	0	1	0	0	1	0	3	0.4%
2-2.9	5	1	4	1	2	2	1	0	0	2	18	2.6%
3-3.9	53	3	21	2	37	22	5	11	4	7	165	23.9%
4-4.9	115	9	40	9	78	61	8	23	17	9	369	53.5%
5.0	53	2	13	3	28	18	2	8	2	6	135	19.6%
Total	227	15	78	15	145	104	16	42	24	24	690	100.0%

Appendix G: Reliability Statistics for RECAP Measures

Reliability Statistics

History of Reliability for RECAP Measures

What does Cronbach's alpha mean?

Cronbach's alpha is a test of a measure's internal consistency. It is sometimes called a "scale reliability coefficient." For any assessment process, it is important to know whether the same set of questions measures a similar construct. Measures are declared reliable only when they provide reliable responses.

Cronbach's alpha assesses the internal reliability of a measure's answers. By measuring and reporting Cronbach's alpha values, we have what is considered a numerical coefficient of reliability. Table G-1 presents Cronbach's alpha values for the P-CRS for the 2012-2013 school year, while Table G-2 displays a seven-year history of Cronbach's alpha values for the ECERS-R, COR and T-CRS measures.

Table G-1. Cronbach's Alpha Values for the P-CRS

2012-2013 RECAP Annual Report P-CRS Internal Reliability for Time 1 Sample Size (N) and Cronbach's Alpha Values (α)		
	N	α
Task Orientation	991	0.74
Frustration Tolerance	965	0.79
Positive Peer Social Relations	982	0.84
Negative Peer Social Relations*	981	0.77
Self Reliance	965	0.76
Shy Anxious Withdrawn*	951	0.75
Positive Disposition	979	0.77
* Rekeyed so that higher value indicates better functioning		

Table G-2. Seven-Year History of Cronbach's Alpha Values for RECAP Measures

2012-2013 RECAP Annual Report														
Reliability of RECAP Measures														
Sample Size (N) and Cronbach's Alpha Values (α)														
	2006-07		2007-08		2008-09		2009-10		2010-11		2011-12		2012-13	
Subscale	N	α												
ECERS-R	127	0.94	106	0.88	106	0.91	127	0.94	106	0.88	106	0.91	101	0.87
COR														
Initiative & Social	1,989	0.91	2,028	0.90	1,866	0.90	1,989	0.91	2,028	0.90	1,866	0.90	1,847	0.87
Language & Literacy	1,906	0.93	1,993	0.86	1,869	0.86	1,906	0.93	1,993	0.86	1,869	0.86	1,798	0.79
Movement & Music	1,983	0.88	2,010	0.86	1,865	0.86	1,983	0.88	2,010	0.86	1,865	0.86	1,874	0.83
Math & Science	1,932	0.86	1,994	0.90	1,846	0.90	1,932	0.86	1,994	0.90	1,846	0.90	1,803	0.85
T-CRS														
Task Orientation	2,198	0.91	2,067	0.91	2,613	0.92	2,198	0.91	2,067	0.91	2,613	0.92	1,867	0.90
Behavior Control	2,180	0.93	2,057	0.93	2,601	0.94	2,180	0.93	2,057	0.93	2,601	0.94	1,867	0.93
Assertiveness	2,183	0.89	2,046	0.93	2,597	0.90	2,183	0.89	2,046	0.93	2,597	0.90	1,865	0.88
Peer Social	2,189	0.93	2,037	0.89	2,603	0.94	2,189	0.93	2,037	0.89	2,603	0.94	1,863	0.92

History of RECAP ECERS-R Inter-Rater Reliability

What is the Inter-Rater reliability of ECERS-R?

As part of an ongoing effort to assure the accuracy of the measures used, many classrooms are observed by two observers so that we can calculate the level of agreement or inter-rater reliability between different observers.

Table G-3 below shows the inter-rater reliability of ECERS-R total score and subscales using a simple correlation (r) and the median inter-rater reliability for exact matches uses $a/a+d$; where a =agreement and d =disagreement. These results confirm that the administration of the ECERS-R by RECAP conforms to national standards and is of high quality, because the developers of the ECERS-R reported similar inter-rater reliability (0.92).

Table G-3. Seven-Year History of Inter-Rater Reliability for ECERS-R

2012-2013 RECAP Annual Report							
History of Inter-Rater Reliability of ECERS-R Total Score and Subscales*							
School Year	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Sample Size N	23	16	13	16	18	17	16
Median Inter-Rater Reliability for Exact Matches	0.88	0.85	0.88	0.89	0.91	0.90	0.93
Median Inter-Rater Reliability for Differences of One Point Matches	0.93	0.93	0.93	0.95	0.96	0.93	0.95
Space (r)	0.86	0.89	0.95	0.97	0.94	0.84	0.86
Routine (r)	0.94	0.90	0.71	0.92	0.99	0.94	0.98
Language (r)	0.87	0.66	0.88	0.98	0.93	0.82	0.93
Activities (r)	0.96	0.81	0.97	0.93	0.97	0.98	0.97
Interaction (r)	0.97	0.74	0.99	0.94	0.98	0.97	0.90
Program Structure (r)	0.81	0.99	0.99	0.92	0.98	0.98	0.95
Parent and Staff Development(r)	0.90	0.60	0.92	0.76	0.94	0.97	0.97
Total ECERS Score (r)	0.95	0.83	0.98	0.99	0.99	0.98	0.96
Note: * Signifies that all inter-rater reliability statistics in this table are significant at $p < .05$							
(r) Signifies Pearson Coefficient values shown.							