Kansas Kindergarten Assessment Initiative Report

Fall 2007 (KS-KAI)

REPORT

April 2008

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This report was published by the University of Kansas, in collaboration with the Kansas Health Institute and the Kansas State Department of Education. The authors alone are responsible for the accuracy of the contents of this report.

Funding for this project was provided by the Kansas Health Foundation, Wichita, Kansas. The Kansas Health Foundation is a philanthropic organization whose mission is to improve the health of all Kansans.

A statewide assessment of the school readiness of children entering Kindergarten was conducted in the fall of 2007 through a collaboration between the Kansas Health Institute, Kansas State Department of Education, and two centers at the University of Kansas - the Institute for Educational Research and Public Service, and the Center for Educational Testing and Evaluation to assess current readiness for success in Kindergarten. The primary purpose of the Kansas Kindergarten Assessment Initiative (KS-KAI) is to provide an understanding of the knowledge and skills, both academic and social, that children have as they enter Kindergarten. In addition, information about gaps that are identified in areas known to predict later achievement in school can be used to build awareness, illustrate possible ways to allocate resources, and inform policies so more Kansas children succeed in school. Results can be used to advise how families, schools, and communities could take steps to assure young children's school success.

Kindergarten readiness in Kansas emerges from a collective effort on the part of families, community, and schools to prepare children for later school success. School Readiness occurs when families, schools, and communities support and serve children effectively so that all children have the ability to succeed in various learning environments (KSDE, Early Learning Guidelines). In this report the abilities of children entering Kindergarten are described to provide information to all stakeholders that are part of the preparation of young children for Kindergarten, including policy makers, parents, community members, early care providers, and the many entities that provide preschool services. It is clear that legislation provides for children to attend public school beginning in Kindergarten no earlier than the year that a child reaches the age of five

years as of August 31. There is no basis in law to keep children from Kindergarten entry depending upon abilities and other personal characteristics. "All means all" is the key principle for Kindergarten entry, so that children who are old enough should be admitted to Kindergarten classrooms. Some parents choose to wait to have their children enter Kindergarten for various reasons, but a clear consensus of the benefit for this practice is not seen in the research literature (Stipek, 2002). Kindergarten attendance is not mandatory in Kansas although there was unsuccessful legislation proposed recently to have this be enacted.

The KS-KAI measurement activity describes the overall abilities of Kansas children on a number of measures and focuses on relevant sub-groups throughout the state in order to share information that may provide a springboard for better preparation of young children for success in Kindergarten and in the years beyond Kindergarten. A randomly selected representative sample of 2,666 children entering Kindergarten in August 2007 was directly assessed within the first 6 weeks of school. This child response data provides a snapshot of how children at the beginning of Kindergarten performed on well-known measures typically used in early childhood in academic and non-academic areas important for school success. A parallel measurement project with 1,988 children undertaken by the Kansas State Department of Education (KSDE) with support from the Children's Cabinet on a subsample of the KS-KAI sample is also described briefly in this report.

The combination of direct child assessments from the KS-KAI and teacher ratings of children's skill levels from the Kansas Early Learning Inventory (KELI) provide Kansas with a uniquely comprehensive picture of how ready children are to be

successful in school as they enter Kindergarten. These results will be provided to policymakers and educators to inform decision making as they address the needs of young children before children begin the K-12 school system.

Research Plan

The KS-KAI is a randomly selected representative sample of Kansas Kindergarten students. In order to attain this sample, a total of 73 school districts were randomly selected by first determining the size of the district by assigning the Kansas Athletic Classification (from 1A, the smallest to 6 A) and randomly selecting 25% of districts in each category, as outlined by John Poggio of the Center for Educational Testing and Evaluation at KU. There were 23-1A, 14-2A, 14-3A, 14-4A, and 11- 5-6A districts randomly selected. A decision was made to combine the 5A and 6A lists since several districts had one high school in both 5A and 6A designations. Consents were sent to parents at 25% (or 1) of the elementary schools in each district with Kindergarten classrooms and a total of not more than 10 students in each classroom were randomly selected to be assessed. Only 1 % of parents chose not to have their children participate, thus making this evaluation sample to be inclusive of the groups assessed.

For the direct child response assessments, 72 external assessors were recruited and trained by the Institute personnel at the University of Kansas to work in three waves of assessment covering the northeast, southeast, and western parts of the state. As stated previously, a maximum of ten students who had parental consent to participate were randomly selected from each classroom. In keeping with developmentally appropriate practice, young children are not expected to be able to complete all the assessments. So

that each child had an equal chance to participate in at least two of the assessment blocks. Children randomly selected two marked beads from a bag prior to the start of the testing. This is the same assessment sampling model that has been used in the National Assessment of Educational Progress since its inception to date (1968-2008).

KS-KAI measures include the Peabody Picture Vocabulary Test (receptive language), Test of Preschool Early Literacy (TOPEL, test of literacy), Devereux Early Childhood Assessments (social skills), Emergent Writing (writing), and subtests of the Woodcock Johnson (math, literacy, and general knowledge). These measures (see Table 1 below) were selected by professionals in early childhood education to collect child data with an emphasize literacy, math, language/ communication, learning/cognition, and social skills. Teachers were recruited at the time of KS-KAI testing to rate 10 of their children using the observation measure, the Kansas Early Learning Inventory (KELI), as part of KSDE's ongoing School Readiness Project to rate similar domains of skills to the KS-KAI measurement.

Table 1. Listing of assessments and number of children tested for each block.

Measurement Blocks	Measures in Each Block	Areas Assessed within each Block	Number of Students Assessed	Number of Valid Cases Analyzed
Block A	**Peabody Picture Vocabulary Test** (PPVT-III)	Receptive Language	715	693
Block B	**Test of Preschool Early Literacy , Parts 1 and 2** (TOPEL)	Knowledge of Print, Definitional Vocabulary	738	609 *
Block C	**Test of Preschool Early Literacy , Part 3**	Phonological Awareness (awareness of	675	580 *

	(TOPEL)	sounds related to letters and words)		
Block D	**Woodcock Johnson III WJ subtest 1**- Letter-Word Identification Emergent Writing	Letter-word Identification Child writes own name	752	710
Block E	Woodcock Johnson III **WJ subtest 10** Applied Problems **WJ subtest 18A** Quantitative Concepts	Addition, subtraction, knowledge of math logic, counting, identifying numbers, shapes, and number sequences	741	700
Block F	**Woodcock Johnson III WJ subtest 19A** – Science **WJ subtest 19B**- Social Studies	General Knowledge of science and social studies	774	740
Block G	**Devereux Early Childhood Assessment** (DECA) (Teacher Report, there is no direct child measure for social skills at the Kindergarten level)	Social Skills, including the factors of initiative, self-control, attachment, total protective factors, and behavioral concerns.	661	646

* For Blocks B and C, cases were eliminated that exceeded the maximum age of the test norms.

Table 2 below, lists each of the measures and describes the content of items in brief.

Table 2

KS-KAI Child Measures

Peabody Picture Vocabulary Test III measures receptive language by asking a child to point to one picture that shows the concept "empty" in a set of four pictures
Test of Preschool Early Literacy measures knowledge of print (recognize letters), phonological awareness (sounds that letters and words make), and vocabulary *Emergent Writing Task* measures how well children can write their name
Woodcock Johnson III-Letter Word Identification measures how well children recognize letters in the alphabet and read simple and more complex words
Woodcock Johnson III-Applied Problems and Quantitative Concepts measures identifying numbers, shapes, sequences, counting, addition, subtraction, math logic
Woodcock Johnson III-Science asks children to point to the "fish" or name "kangaroo"
Woodcock Johnson III-Social Studies asks children to point to pictures of common objects such as "house" or "hammer" measures what different people do (police, firefighters)
Devereux Early Childhood Assessment measures social skills including initiative, self-control, attachment, behavior concerns

Participants – Description of Entire Sample

Children entering Kindergarten are the unit of analysis, based on Kansas demographic data. The 2,666 children in the KS-KAI represent 54 counties in Kansas, all 10 school board districts within the state, each of the 4 congressional districts, 73 school districts, and 109 separate buildings within districts. The sample includes 1, 316 female and 1,327 male students (the gender of 3 students was not identified) and students are an average of 67.05 months of age, ranging in age from 57 months to 83 months. This age range for entering Kindergarten students reflects a diverse group, including students

who have already experienced one year of Kindergarten, students with English Learning needs and Special Education designations. The sample includes 2,036 white, 340 Hispanic, 157 Black/ African American, 45 Asian, 35 American Indian or Alaskan native, and 5 native Hawaiian children. The 259 children that are English Language Learners, include 196 Spanish speakers, 25 Arabic, 13 German, 8 Vietnamese, and 3 Lao speakers. Fifty-two (52) of the children are from military families. Children receiving either free (300 children / 11.3 %) or free and reduced lunch (908 children/ 34.1 %) support total 1,208 or 45.4% of the total children tested. The sample includes 317 children or 12 % of the population who have Individualized Education Plans for special education services. Children's experiences in 2006-07 prior to entering Kindergarten show 85 % had some kind of early learning placement outside the home (in Table 3 below).

Table 3. Sample Description of 2,666 Children Assessed

Gender	**N**	**%**
Female	1,316	49.4 %
Male	1, 347	50.6 %
Not Available	3	
Age		
Average Age is 67.05 months, ranging from 57 to 83 months		
Race/Ethnicity		
American Indian/ Alaskan Native	35	1.3 %
Asian	45	1.7 %
Black/African American	157	5.9 %
Hispanic or Latino	340	12.8%
Native Hawaiian	5	0.2%
White	2,036	76.9%
Not specified	48	1.2 %
English Language Learners	259	9.7 %
Spanish	196	75.4 %
Arabic	25	9.6 %
German	13	5.0 %

Vietnamese	8	3.1 %
Other	18	6.7 %
Primary Exceptionalities	317	12 %
Autism	2	.1 %
Developmental Disability (used 3-8 yrs.)	118	4.5%
Emotional Disturbance	1	0.1 %
Hearing Impairment	4	0.2 %
Learning Disability	2	0.1 %
Mental Retardation	3	0.1 %
Other Health Impairment	2	0.1 %
Speech Language	178	6.7 %
Visual Impairment	1	0.1 %
Children Receiving Free and Reduced Lunch		
Eligible for reduced lunch	300	11.3 %
Eligible for free lunch	908	34.1 %
Total receiving help with lunch	1208	45.4%
Children in Military Families	53	2.0 %

The KSDE sample population is similar in nature to both this year's KS-KAI sample and to previous KSDE sample populations. Each of the 264 classroom teachers who participated in the KS-KAI measurement process were asked to complete the Kansas Early Learning Inventory on 10 of their children. Although KS-KAI drew children from both morning and afternoon Kindergarten classes, teachers were asked to select just one of their class sessions and rate only 10 students who had consent for KS-KAI for the KELI. The 1,988 students in the KSDE sample are similar in description to the KS-KAI sample, especially since this is much the same group of children. There are 49.1 % female and 50.9 % male students, and approximately 8.7 % of the students are enrolled in English as a Second Language services. Children with IEPs represent 13% of the KELI population; racial distribution of this smaller sample is the same as the KS-KAI grouping.

History of the KSDE Readiness Project

The current, comprehensive measures used in this KS-KAI project and the parallel measurement completed by KSDE suggest that while many Kansas children are coming to Kindergarten prepared to be successful, there are still a significant number of children lacking the necessary skills for success. This general finding is essentially the same result that was found in two previous years (2005 and 2006) of teacher ratings conducted by the Kansas State Department of Education (KSDE) and confirmed in the 2007 KSDE results. An earlier pilot study from 2004 yielded an estimate of preparedness for Kindergarten success, but this measure is no longer used. These early pilot results suggested that approximately half of entering Kindergarteners were judged NOT to be prepared for Kindergarten success. Building upon the results of the older pilot study and a review of the initial measure, a more in-depth, comprehensive plan for assessment of school readiness was developed eventually resulting in this year's partnership among KHI, KSDE, and KU.

The purpose of the ongoing KSDE School Readiness Project is to collect data on entering Kindergarteners (contained in this report), information about Kindergarten classroom practices (slated for a later KSDE report) and information about parent and home supports (in this report). This information is intended to be used to improve school readiness and school success for Kansas children and to highlight the school, family, and community factors promoting readiness.

These factors (school, family, and community) come from the Kansas School Readiness Framework developed by the School Readiness Task Force eight years ago.

This task force had representation from state agencies and organizations, local early childhood providers, and school district personnel and began development of the School Readiness Framework during the summer of 2000. The Framework includes goals, indicators, and data measures that could allow the State of Kansas to evaluate the level of readiness of entering Kindergarten students and the community, school, and family factors that influenced a child's level of readiness. A pilot study was conducted in 2003 to refine the Framework. Work during the 2004 school year assisted in refining the data collection instruments and statistical modeling used to study school readiness in the earlier part of the current decade.

In 2005-06, the first year that the KELI was used, a total of 232 teachers participated with 2, 367 students selected for the project. Teachers provided parents of selected students with a short survey and 1,808 parents responded. Data during 2005-06 were collected on teacher's beliefs, their classroom practices via the Kindergarten Teacher Practices (KTP), children's abilities as measured by the Kansas Early Learning Inventory (KELI), and a parent survey.

The Teacher Beliefs Survey is comprised of 4 open-ended questions on teachers' philosophical beliefs about skills needed by Kindergarteners for success, important instructional practices for Kindergarten, strategies for children entering Kindergarten with delays and important features of the classroom environment. The Kindergarten Teacher Practices survey was completed during their first 6 weeks of class to assess classroom practices in 3 domain areas: physical environment, social context and instructional context. The parent survey includes 8 questions about home literacy practices, early childcare and preschool experiences for the Kindergartener, affordability

of childcare, participation in Parents as Teachers and information about transition practices for Kindergarten. The KELI is a measure of child achievement that is completed by classroom teachers on individual children. It was developed by Kansas early childhood experts in conjunction with Riverside Publishing Company that developed the Qualls *Early Learning Inventory (QELI,* Qualls, Hoover, Dunbar & Frisbie, 2003). Kansas added the domains of Physical Development, Symbolic Development, and Social Emotional Development. All other domains come from the *QELI*, a national normative sample assessed, including the following domains: Written Language, Math Concepts, General Knowledge, Oral Language, Work Habits, and Attentive Behavior.

Data collection in 2006-07 included 2,088 students who had both fall 2006 and spring 2007 measures completed by teachers and parents. Instruments were the *Kindergarten Teacher Beliefs Scale*, *Kindergarten Teacher Practices (KTP)*, the *Kansas Early Learning Inventory (KELI)*, and a parent survey.

Overall Results for Each Readiness Area in the Current Study (2007)

Results of the measurement for KS-KAI assessments and KSDE's *KELI* include a number of different score metrics. The standardized test scores are compared to the national normative samples to show how Kansas Kindergarteners are performing in relation to others across the country. Other measures without a normative sample for comparison were reviewed by a group of 10 experts in Kindergarten curriculum across the state, to find the typical performance of young children on Kindergarten entry. The level of items identified served as a benchmark for evaluating overall performance of the sample. The experts included 9 veteran Kindergarten teachers from across the state of

Kansas and one professor of early childhood from a different university than KU. For the *KELI*, mean ratings are reported on a 0- to 3-point scale, with 3 being highest, to show relative achievement levels in comparison to national norms on six domains of this test derived from the *Qualls Early Learning Inventory (QELI),* upon which the *KELI* is based.

Language and Literacy

Language – Receptive and Expressive

Language is often explained as both a listening (receptive) and/ or speaking (expressive) task. Oral language is the foundation for literacy development, according to Strickland (2006). Listening or receptive language is interconnected with language, cognition, and social interaction. The KS-KAI measurement combined with the *KELI* measure looks at all aspects of language for Kindergarten children, since language is closely tied to children's progress in school and their success in learning to read (Wasik, 2006).

The *Picture Vocabulary Test – III* (*PPVT-III*), (Dunn & Dunn, 1997) is a test of listening comprehension in which an examiner uses the spoken word to name an object that the examinee uses as a cue to select one of four pictures that is the correct response. Based on *PPVT* scores, 98 % of Kansas Kindergarteners have shown adequate receptive language skills or skills that represent understanding and interpreting spoken language. This score does not require children to speak, but measures children's understanding of a spoken word by pointing to one of four pictures. For example, the *Peabody Picture Vocabulary Test III* measures receptive language by asking a child to point to one picture

that shows the concept "empty" in a set of four pictures. Detailed mean scores are contained in Tables 5b and 5c in the Appendix.

Oral Communication, a measure of language in the *KELI* is rated at a relatively high level for the smaller overall sample of 1,988 children (an average score of 2.39 on a 0- to 3-point scale). This domain on the *KELI* includes both language and literacy skills. Language items include asking and answering questions while literacy concepts focus on recalling facts and retelling simple stories. Kansas children are doing well on the domain of *Oral Communication*. According to Wasik (2006), vocabulary development is one of the most important aspects of children's literacy development. By learning new words and using them, children can label objects and people, learn new concepts, and communicate with others. More complex oral language supports children to talk about abstract ideas, events that happened in the past, predicting the future, the language of imagination, and solving problems (Notari-Syverson & Challoneer, 2005).

One additional indicator of child language is the act of writing what one wants to say or express – an expressive language skill. According to Love, Burns, and Buell, (2007), "Writing activities are an essential part of quality literacy practices in early care and education settings" (p. 12). These authors state that teachers of young children can organize classrooms to provide opportunities for children to write in multiples areas or learning centers, through active teacher-child engagement, and by strong home-school links for writing interaction, such as take-home journals that children can see are purposeful for communicating. In addition, having a print-rich classroom (labels and signs, names of classmates listed) provides more support for learning the meaning of print. Writing for younger children is a bit different than adult writing, in purpose and

form, but in general, there is interconnection between child's drawing and writing. Early educators know the joy of watching a young child in a writing center making a letter to mail to someone to communicate an idea or just go through the motions of writing. Tolchinsky (2006) tells us that even before a young child can formally read, they can reliably classify some letter strings such as BOOK as a word, while others (TTTT) are unreadable, so writing does hold some meaning for young children. One means of showing the function of writing in early childhood classes is for a teacher to take dictation from a child, displaying the story, so children can revisit it over and over again.

Very young children often begin by scribbling, then making letter-like forms, eventually forming letters, and ultimately stringing these letters together to form a word – all parts of emergent writing, a part of literacy(Mayer, 2007). Children often move between these various levels of writing, depending on their purpose and thoughts about what they are trying to express (Barnhart & Schultz, 1986; Whitehurst & Lonigan, 1998; Burns & Casbergue, 1992) and fine motor ability can be a factor in developing writing skills. The ability to write one's own first name is one of the first formal writing skills children can do (Tolchinsky, 2003).

In the KS-KAI, a portion of students (575 of the total sample of 2,666 children) were asked to write first and last names without copying from a model on the *Emergent Writing* task Diamond, Gerde & Powell, 2003). Although the KS-KAI staff did not expect Kindergarteners to know how to write their last name, almost 24% of the 575 students were able to write both their first and last names. This is much more than expected at Kindergarten entry, according to Kansas experts. Many children (470 or 81.7 %) spelled their first names correctly but did not use capital letters (i.e. anna) and at

least 377 students (67.0 %) can write their first name as expected, starting with a capital letter.

Writing is an area of lower achievement in the KSDE teacher ratings. *Written Language* mean or average scores are 1.36 on a 0- to 3-point scale. The skills rated by teachers include lower level skills such as printing first and last name (as reported above for KS-KAI), up to higher level skills such as writing common words from memory. According to Mayer (2007), since reading and writing develop simultaneously and are interconnected, it is important to look at both reading and writing processes in literacy development.

Literacy

Kansas children score at or above their peers nationwide in the area of basic literacy using both the KS-KAI measures and the *KELI* (KSDE), but could do better on complex literacy skills such as phonological analysis, or letter-sound relationships. Developing receptive and expressive vocabulary, understanding of functions of print, and understanding that there are systematic relationships between letters and sounds, and between written and spoken language, are important foundations for the development of reading and writing (Dickinson & Tabors, 2001; Sulzby & Teale, 1986).

The *Woodcock Johnson Tests of Achievement* Subtest 1, *Letter-Word Identification* (Woodcock, McGrew & Mather, 2001) involves identifying single letters either by pointing or naming and the reading of simple to more difficult words. Kansas raters indicated that Kindergarten students should score a minimum of 8.5 on this measure at Kindergarten entry. At the 25th percentile level, students scored a mean of 8 to match this level, showing that 75 % of students are scoring above this indicator and

doing well (See Table 5c in the Appendix for mean score reports.) Alphabet knowledge, including the knowledge of the symbols in the alphabet and recognition of sounds and letter names, is very important for acquiring the ability to read (Nodelman, 2001; Wasik, 2001). A subscale of the *Test of Preschool Early Literacy* or *TOPEL* is *Print Knowledge* which involves identifying information that supports literacy such as recognizing letters and understanding conventions of print, such as how a book is arranged. Knowing about print or print awareness means that children recognize the characteristics and rules of written language (Strickland & Schickedznz, 2004). The *Definitional Vocabulary* subscale requires students to not only identify a picture of an object, but to tell about what it is used for or does. This more complex task of naming and explaining a picture shows more understanding and use of language and was recommended by speech language pathologists at KU who were consulted concerning the best vocabulary measures to include in the KS-KAI. TOPEL mean scores are contained in Table 5b in the Appendix

Children in Kansas achieved at a level above national standards on all but the *Phonological Analysis* scale, where Kansas children scored the same as the national standard (99.76) on this test of understanding of the sounds of letters and words (Table 5c, Appendix). KSDE results indicate that skills in the area of *Symbolic Development*, which includes phonemic awareness, and other early literacy skills, were not as high as oral communication/ literacy skills on the *KELI* measure. On average, *Symbolic Development* scores were at 2.04 on a 0- to 3-point scale, a moderate level of attainment.

Social Skills

Teachers indicate that social skills are necessary for success in school. Learning in the classroom is often controlled by social, emotional and self-regulation capacities (Thompson & Raikes, 2007) Children entering school should be able to understand the feelings of others, control their own feelings and behaviors, and be able to get along with classmates and teachers (Boyd et. al, 2006). Absence of challenging behaviors is another component of social skills. Academic success is often undermined by emerging emotional problems with origins in temperamental vulnerability, negative family issues, and traumatic early events (Shonkoff & Phillips, 2000). Some children need additional support in social domains due to such challenging behaviors, but many children entering Kindergarten have adequate social skills.

Children in Kansas scored well in social skills, but were slightly below the national standards on the *Devereux Early Childhood Assessment or DECA* (LewBuffe & Naglieri, 1999) in the area of Attachment indicating that children are rated by teachers to be less ready to interact with adults and other children known to the child. However, when we look at *Total Protective Factors*, a combination of the factors of *Initiative, Self-Control*, and *Attachment* combined, the differences even out, and the scores on *Total Protective Factors* match national normative standards. (See Table 5a in the Appendix for full results.)

The KSDE data (teacher ratings) suggest that children are coming to school with social skills that are acceptable. *Social Skills*, on the *KELI*, look at similar items and some of the same concepts as the *DECA* but the skills are more focused components of social competence including a number of direct school items: *Social Emotional Development,* 2.42 on a 0- to 3-point scale (measures ability to cope well with frustration and work

cooperatively with others); *Attentive Behavior*, 2.39 on a 0- to 3-point scale (ability to follow simple instructions and stay on task); and *Work Habits*, 2.45 on a 0- to 3-point scale (completing work independently and sustaining effort on learning tasks).

Mathematics

During the preschool years, young children spontaneously use mathematical concepts, including sorting and classifying, counting, and recognizing shapes and sizes, in play activities (Ginsburg et al., 1998). These mathematical activities emerge in the context of children's interactions with and explorations of their environment (Ginsburg, Pappas, & Seo, 2001). More formal mathematics learning and practice comes about through guided learning experiences and exploration of the world around us. Copley (2000) suggests that mathematics is the "search for sense and meaning, patterns and relationships, order and predictability (pg. v.). In 2000, the National Council of Teachers of Mathematics (NCTM) published a set of content standards for mathematics that include five areas: number and operations, geometry, measurement, algebra, and data analysis and probability. Number and operations is emphasized the most at early ages and should include counting, comparing and ordering, grouping and place value, looking at the whole in terms of its parts, adding to and taking away, and composing and decomposing (Clements, 2004). Geometry is usually shapes and spatial relationships at early ages; measurement is approximations and comparisons of size rather than exacting measurement. However, algebra (finding patterns) and data analysis (classifying, organizing, representing, and using information) and probability (likelihood of occurrence) are also parts of early mathematical learning.

The KSDE data show that children scored less well in mathematics, compared to other academic areas (1.94 of 3.0, on a 0-3 point scale). Math skills on the *KELI* include basic numerical concepts such as counting to 20, identifying simple shapes, patterning, and classification. In contrast, the KS-KAI items included both basic mathematic skills and the use of these skills in problem solving. In basic math, the judges indicated a score of 11 would be entry level for Kansas Kindergarteners and students at the 10th percentile were near this level, with 90 % of students scoring above this level to indicate effective understanding of mathematics for *Applied Problems*. However, higher math skills at Kindergarten entry appear to be somewhat below what Kansas experts indicate is expected, in the *Quantitative Concepts* subtest of the *Woodcock Johnson* since 50% of students were above this level, decidedly less than other indicators of readiness. (See Table 5c in the Appendix for Woodcock Johnson math mean scores.) Achieved items include counting from 1 to 10, identifying shapes, classifying sizes, and identifying a common numeral. More difficult items are identifying last and middle in an array of items, larger numbers, and simple addition and subtraction. Entering Kindergarteners scored lower in the area of mathematics on both the KS-KAI measures and the KSDE measures.

Science and Social Studies (KS-KAI)

The indicators for Science and Social Studies subtests of the *Woodcock Johnson* were both rated to be 12.5 by ten independent experts in Kansas. Both of these scores are at approximately the 75th percentile, indicating that students are somewhat prepared in the areas of science and social studies, but could do better. (Table 5c in Appendix contains

Woodcock Johnson Science and Social Studies scores.) Entering Kindergarteners appear to need more support in science and social studies, as measured by the *Woodcock Johnson* assessment. Curriculum in science and social studies needs to "build on children's prior experiences, backgrounds, and early theories" (p. 3, Worth & Grollman, 2003). By carefully choosing materials that draw on child curiosity and encourage children to develop their own questions and ideas, science and social studies evolves. Rather than learning specific facts at young ages, children learn to solve problems, ask questions, and determine actions and reactions.

General Knowledge *(KELI)*

For the KSDE measure, *General Knowledge*, items include knowledge of personal information, naming colors, directionality (left-right orientation). The *General Knowledge* ratings by teachers in the KSDE measures 2.22 on a 0- to 3-point scale. *General Knowledge* includes skills that extend across all academic areas, including science and social studies, but the number of items is quite small and cannot be directly compared with the KS-KAI measures.

In summary, Children entering Kindergarten in Kansas are doing well in social skills, basic literacy, and language but could be better prepared in more complex aspects of literacy, math, and science / social studies.

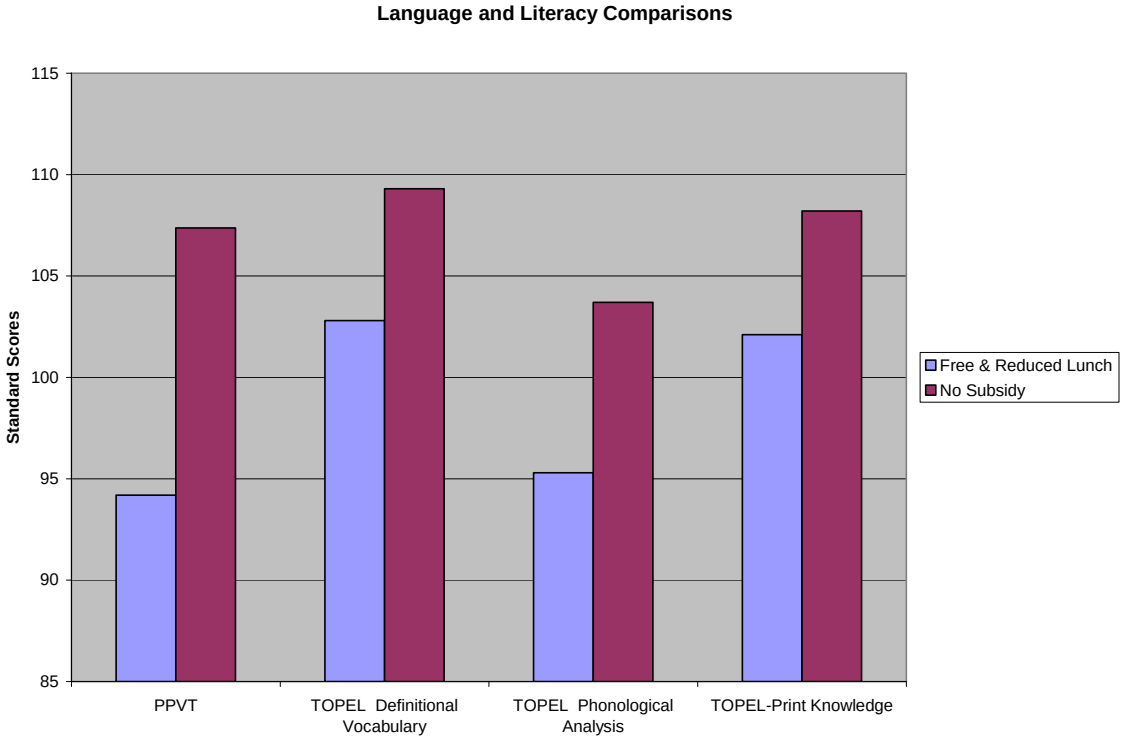
Identifying Gaps in Readiness

There are particular subgroups within the state that could benefit from additional support and preparation for learning, either through preschool preparation, additional community support for education, family support, or any of the multitude of factors that impact school readiness and early childhood support. Students who are English Language Learners (ESOL) and students at risk due to income constraints score lower on most academic and social measures and teachers report these children are also ranked lower in skill levels at Kindergarten entry. Similarly, children who come to Kindergarten with an Individualized Education Plan (IEP) score lower in all subject areas than children who do not have special education needs and teacher reports are consistent with these findings.

Comparison of the population of children who are eligible for free and reduced lunch and those students who don't receive subsidies show that the children from lower income families are doing less well at Kindergarten entry as compared to national standards in social skills, some literacy measures, and in relation to state estimates of math, problem solving, and general knowledge. Although these results are a concern, there has been some research findings related to children at-risk for delays that is promising. According to Griffin (2004) and Klein & Starkey (2004), research indicates that well-developed programs for teaching content have significant benefits for children at-risk for difficulty in learning. In the case of mathematics, Clements (2003) says the following:

> "No only should all children be exposed to challenging mathematics, but children at risk for low performance in school mathematics and those from groups underrepresented in mathematics should be provided more support, as have high-quality mathematical experiences in the years before school in order to improve their chance of learning and performing successfully in school mathematics", (pp. 63-64)

In the KSDE results, students receiving lunch support scored substantially lower in all areas of the *KELI* measure, but the gap was not as wide in social skills as it was in the other areas of measurement. The TOPEL and PPVT scores are detailed below in the chart from the KS-KAI measures (and also in Table 11b in the Appendix.)



In addition, students who are enrolled in English as a Second Language (ESOL) services and students with disabilities score less well, as compared with the rest of the sample of students. (See Tables 12a-c in Appendix.). Although students in the English language learner category scored somewhat lower than their English-speaking peers in most academic and social areas, *Work Habits* scores were at about the same level as their peers. Not surprisingly, *Oral Communication* scores were much lower for this subgroup. Not only do children who speak other languages bring challenges to early education, but the phenomenon of culture is often being "sustained, challenged, or modified over time",

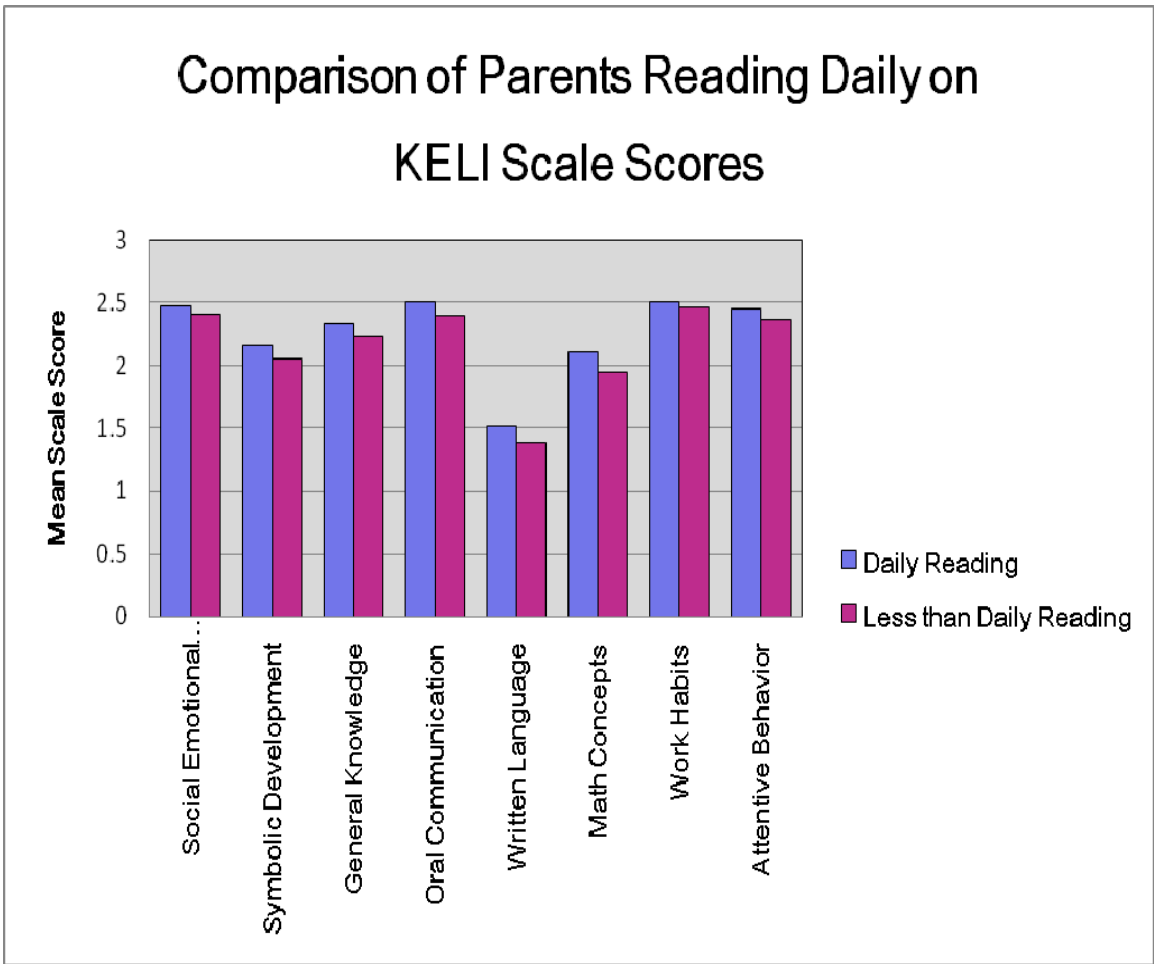
according to Shonkoff & Phillips, (2000, p.69), bringing an ever-changing but influential force into the learning environment that must be honored and used to encourage learning, if possible.

Children who come to Kindergarten with an Individualized Education Plan (IEP) show lower skill levels in all of the KSDE domains than children who do not have an IEP when they enter Kindergarten. The order of skill level results in the eight *KELI* domains is the same for children who have an IEP as for those who do not have an IEP. For example, all children exhibit their highest skills level in the areas of work habits (highest) social development, and oral communication, no matter if the child had an IEP or not. The same pattern of scores is indicated on the KS-KAI measures, with these students scoring less well than their same-age peers in Kindergarten, as reported in Tables 10a-c in the Appendix.

Early Learning Experiences

Parents of 1,373 Kindergarten students who were rated on the *KELI* measure completed a 17-item Parent Survey, including items about preschool attendance and reading in the home that are believed to have an impact on readiness for school success. Experiences within families and outside the home can either be considered factors of resiliency, or contributing to risk – depending on the quality and support for child development that occurs. Study results indicate that reading to children daily at home improves children's readiness for school activities in all of the *KELI* domains. Sixty-six per-cent (66.1 %) of parents reported reading to their Kindergarten child daily, while 29.5 % of parents reported at least weekly reading sessions with their child. Daily

reading positively impacts scores in all *KELI* domains, particularly in academics. A more detailed report of the parent data will be contained in the KSDE report of Kindergarten Readiness to be released in the summer of 2008.



For the KS-KAI measurement sample, consent forms were completed by parents who also indicated whether their child went to preschool, Head Start, Child Care, Kindergarten for the first time, or were at home during the year prior to Kindergarten (2006-07). At least 85 % of children had some experience outside of their home during the previous year. Children who were in an early learning setting scored higher on

academic measures than children who were not. Social skills scores were about the same for both groups. See Tables 13 a-c in the Appendix for more information on all the KS-KAI measures and preschool attendance.

Table 4

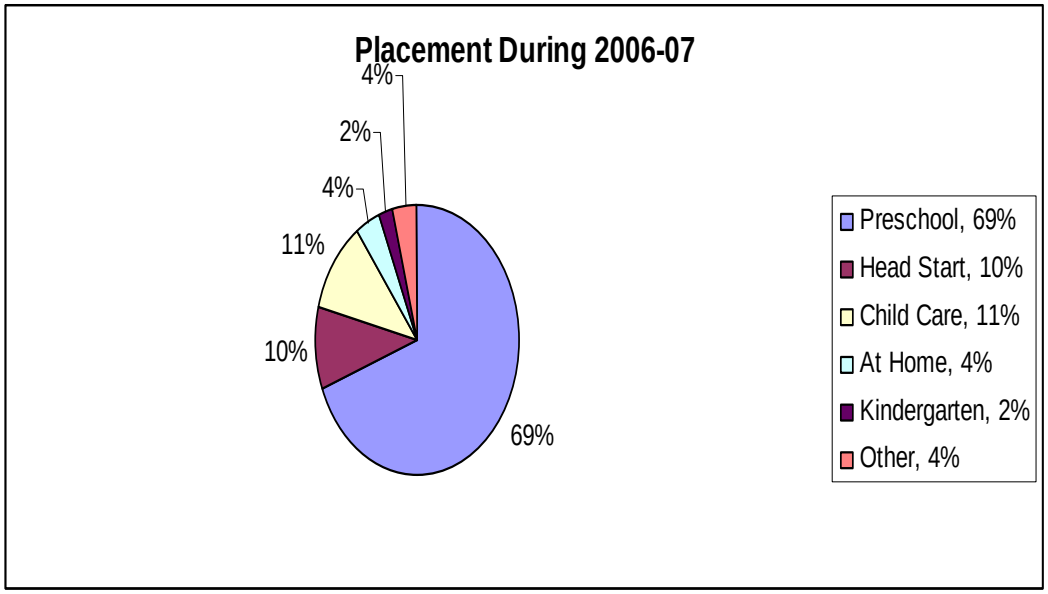
Children's Placement during 2006-07*

Preschool	1,866	70.0 %
Child Care	244	9.2 %
Head Start	301	11.3 %
Other	110	4.1 %
At Home	245	9.2 %
Kindergarten 06-07	66	2.5 %

Since many children attended one or more activities, the variable Experience was created to include all children who had at least one outside the home placement:

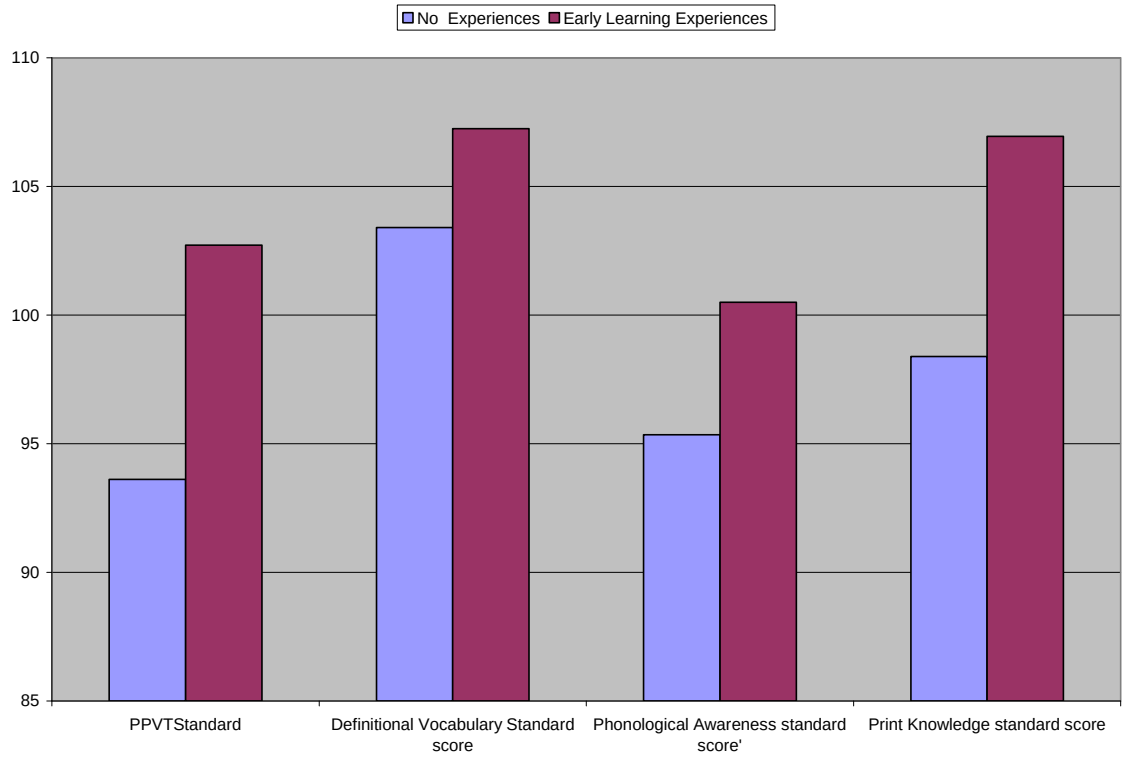
Experience	2,271	85.2 %
At Home	245	9.2 %
Parent did not specify placement	150	5.6 %

* Children's parent indicated placement during the previous year on consent forms. The categories above were named, but not defined specifically. Parents marked the answer as they understood each placement.

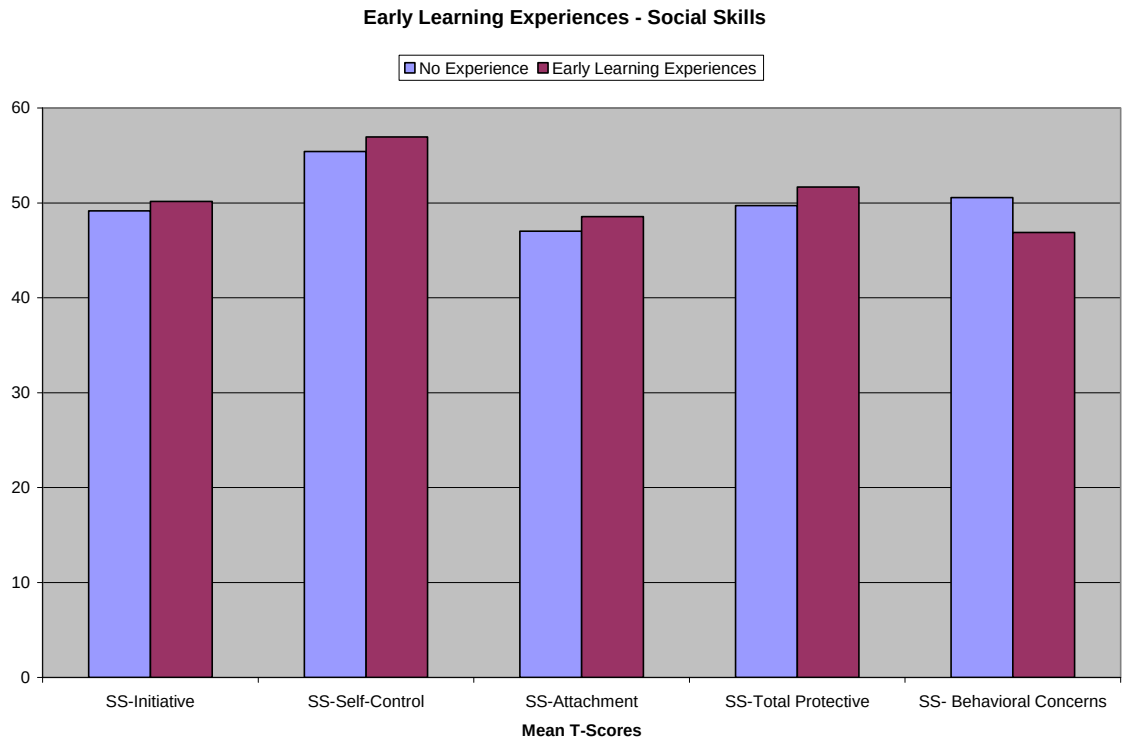


Results indicate that children entering Kindergarten who attended either a Preschool or some out of home placement during the previous year usually did better on academic measures than children who were at home full time.

Academic Measures – Early Learning Experiences



The level of social skills on the *DECA* measure for KS-KAI measurement did not appear to differ for children who had early learning experiences and those children who did not. The chart below (and Tables 14 a in the Appendix) shows the Mean scores for Social Skills and Academic measures with a standard score.



Conclusions

Children are coming to Kindergarten with generally strong social skills and good oral language ability. Basic skills such as language and literacy and some math skills are adequate for many children. Higher level skills including phonological awareness, math problem solving, written language, and science/ social studies are areas of need for Kindergarten children and should be a focus of the early learning experiences that prepare children for school success. The current emphasis on literacy in many preschool

programs and the numerous community initiatives in Kansas seem to have had a beneficial effect on the scores of entering Kindergarten students on basic language and literacy. Early learning experiences such as preschool attendance or being read to by parents at home support general readiness for school success. But there are other aspects of kindergarten readiness that could use more preparation, especially math problem solving, some higher level literacy skills, and science/social studies.

Based on the data from the KS-KAI and KSDE studies, it is clear that some children need more preparation in order to be successful in Kindergarten. Many children whose second language is English or who receive free and reduced price lunch support (an economic indicator), or children with Individual Education Plans often score lower at Kindergarten entry.

To further quantify Kansas Kindergarten Readiness, it is possible to provide a composite average of the percentage of students who scored not less than 2 Standard Deviations below the Mean score on measures of the KS-KAI only. The overall School Readiness Composite Average of 83.5 % quantifies the proportion of entering Kindergarteners who are not likely to experience significant difficulties during the Kindergarten year. This suggests that 16.5 % of Kansas children could experience problems, at least on the areas measured. The academic sub-composite score of 82.3 % and social skill sub-composite of 96% map onto the results of this report.

Recommendations

The data from this collaborative measurement study can guide policy decisions, program development and improvement, and future research plans. Building upon the

School Readiness framework (2000) and the Kansas Early Childhood Comprehensive System (KECCS) plan (2005), this study strengthens the understanding of the level of child achievement in social and academic measures and provides a description of the school readiness of entering Kansas Kindergarteners. These results can be used to inform stakeholders and policy makers and provide a better understanding of the reality of child needs in order to make visionary decisions to help children succeed in school and later life. Policy decisions should be based on evidence using the most current data and results to make informed decision for the betterment of children in Kansas. Policymakers at all levels, including national, state, local, and individual programs should use data from this report as a steppingstone to promote and support quality programs for young children from birth onward.

Suggestions for improving the readiness of Kansas children are organized by the following key statements:

1) Enhance and expand professional development as a critical component of quality early learning experiences.

2) Align preschool and child care curricula and learning activities with the Kansas Early Learning Document (KSELD) to achieve a cohesive and cooperative early learning system that links to Kindergarten and other grades (K-12).

3) Engage all programs, including systems of professional development and curriculum support, in program evaluation that includes the collection of child outcome data to ensure that child, family, and community/school outcomes are collected and analyzed.

4) Implement a measured and logical statewide plan for ongoing evaluation and data collection of Kansas child outcomes from preschool through Grade 3.

Professional Development

Professional development is one way policy makers would make investments in quality. Success in improving the quality of early learning experiences can be achieved by additional support in the area of professional development for adults who interact with young children. Many adults do not understand that children can learn the rudimentary elements of mathematics and understand concepts of general knowledge through playful and developmentally appropriate exploration of materials and introduction of concepts. Professional development provides adults who work with young children the information necessary for appropriate and high quality instruction to occur. Professional development is therefore a critical component of quality early learning experiences. In addition, children of lower income families, children with disabilities, and English language learners need more support for Kindergarten success and strong, consistent, and high quality professional development can help these children to be better prepared for school success.

Study results can easily provide guidance for numerous early learning investments such as professional development that increases teacher quality to promote more high quality programs in Kansas. The study data describe child level knowledge and skills needed for success in school. In order to address these needed skills, teacher training and professional development are key components. Children in higher quality programs do better; skilled teachers are an essential component of quality.

Curriculum Alignment to Promote Quality and Consistency across Programs

Some action steps that can support higher program quality are already beginning to occur in the state of Kansas, but more coordination and support are needed. For example, a collaborative plan is in the initial stages of implementation to align many preschool curricula with the existing Kansas Early Learning Document (KSELD), a set of comprehensive early learning guidelines (includes guidelines and standards), that are aligned with Kindergarten and primary grade standards. This document was developed by multiple early childhood agencies and organizations to enhance and support the abilities of families and early childhood professionals and families to create experiences that promote quality early learning opportunities for all children. Already, programs sponsored by SRS and KSDE are implementing the KSELD as a structure for guiding curriculum development and/or selection, assessment selection and development, and instructional practices. More providers of early learning services need to become familiar and use the KSELD to increase program quality.

Measurement of Child Outcomes at Program Level

Information in this KS-KAI report not only provides understanding for immediate Kindergarten preparation, but provides information for groups and individuals working with young children in the years before and after the Kindergarten year. Data can be used to promote ongoing program improvement at the pre-Kindergarten, Kindergarten, and Primary levels for all Kansas programs. Early childhood is on a continuum from birth to age eight years or third grade, as per federal and state guidelines. Skills needed for school success are developed during the years leading up to Kindergarten entry. School readiness impacts later learning in the primary grades as well as learning during the

Kindergarten year. Data from this study can inform and guide early childhood programs as well as parents to support early learning in the years before Kindergarten. Data from this study can also inform school and administrative practices to better support Kindergarten and primary grade success once children enter formal schooling.

A pilot study is currently underway to develop a system for rating quality in early learning environments. Policymakers and administrators should look carefully at current practices to ensure that any evaluation is relevant to improving child outcomes through program improvement and that early childhood staff are well-trained and adequately compensated. This will maintain a consistent and strong early education experience for Kansas children. Future research is needed to examine not only what promotes school readiness, but supports life-long learning and success.

Children in Kansas are entering Kindergarten with well-developed, age-appropriate social skills, as defined by the measures in this study. An interesting aspect of these study results is that lack of participation by children in a formal preschool experience does not appear to impact social skill status at Kindergarten entry. The strong social skills at Kindergarten entry and a lack of impact on social skills by preschool or other early learning experiences needs to be investigated further. A further analysis of the potential discrepancies in how social skills are defined and assessed by the measures used in this analysis from the perspectives of preschool (birth through age 5 years) and Kindergarten expectations is warranted. For example, an important clarification in addressing the question of how the sub-domains of social emotional development in the first 5 years of life (e.g. adult and peer social interaction, following directions, positive self-image) align with social skills addressed in measures of

classroom behaviors (e.g., work habits, attentive behavior, group behaviors) such as found on the KELI) will be addressed in a future research project related to school readiness.

One possible explanation for the more than adequate social skills scores could be ceiling effects of the measures so that students have adequate social skills according to the measures given but could have a different level of achievement if more or different items were included in the measurement used. There may have been a difference in children's social emotional development in the current study if other measures that had more items related to social emotional development were employed. But, in reality, social skills assessments focus on problem behaviors, with a level of acceptable behaviors as the norm, rather than examining general social-emotional skills. Again, further consideration of items being assessed through an item analysis can guide a more comprehensive examination of the data. The items on the social skills measures selected for both the KS-KAI and *KELI* measurement were determined to be adequate for school-based, non-clinical evaluations of young children's social skills, as decided by a number of educators and experts in early childhood. Thus, we see the outcome of adequate social skills for Kindergarten entry to be a valid measurement of Kansas Kindergarten children.

Plan for Ongoing Statewide Research

The next steps in research will continue to build on accountability through a well-defined process for collecting data across time. Not only is measurement of school readiness important, but looking at the years before and after Kindergarten are also

essential to provide data that promotes later school success and life-long learning. Measurement of child outcomes is critical at all stages in early childhood development. Following the child's learning is a critical component of a long-term evaluation process that provides accountability for programming and fiscal decisions. A project to follow children's learning and achievement from Kindergarten to the end of third grade, with snapshots of achievement levels throughout the four years between the beginning of formal schooling (Kindergarten) and the end of third grade would allow policy makers as well as teachers, administrators, family members, and community members to make decisions that support child success.

To provide ongoing accountability for young children in Kansas, a research plan should be established to support young children's progress on essential skills and knowledge for school success. A well-designed research process should include collecting data on children at the beginning and end of Kindergarten, obtaining information on classroom practices to determine the impact on child learning, using interview and teacher practices data to determine the impact of full versus half-day Kindergarten programming, following a subgroup of children after Kindergarten to examine child learning at the end of First grade (to document possible effects of full/part day programming), and finally, examining the results of the state assessments in reading, mathematics, and science at grade 3. Teacher observations of social skills at this time (3^{rd} grade) will provide information about social well-being in the classroom by grade 3.

Examining the skill level of entering Kindergarteners presupposes that there are strategies that can be put in place to improve skill levels where needed. Further research is needed to look at child skills during their pre-kindergarten year (four-year-old

preschool time) and to follow a cohort or subgroup of these children into kindergarten and on into first and even third grades. This will increase the understanding of the impact of classroom practices and environment on child learning in a year that children commonly attend preschool for the purpose of supporting later school success.

Figure 1. Possible Plan for Follow-Up of Current KS-KAI / KSDE Sample

Time 1 - 2007-08

1) KSDE's KELI, pre-post

2) KS-KAI Standardized Assessments

3) CLASS Observation (and document half-and full-day classes)

4) Interviews with Parents, Teachers, Administrators

5) ELLCO observation, document half- and full-day classes

Time 2 - 2008-09

1) KS-KAI Follow-up end of 1st grade, 1st grade referrals, class size

2) KELI, pre-and post- assessment

Time 3 - 2009-10

1) KS-KAI Monitor 2nd grade referrals, class size

Time 4 - 2010-11

1) Follow-Up with Kansas State Assessments

2) Analysis of Follow-up data K-3, 3rd grade referrals, class size

3) Teacher rating of social skills

Conclusions

Further results from the current study appear to indicate that some types of early learning experiences support Kindergarten skills better than others. This leads to considerations of preschool professional development, community collaboration (especially between school districts and community early learning sites), and family practices as key components of school readiness and later success. Additional support for effective transitions to Kindergarten can also be studied, to determine if families are using the transition services that schools provide and if schools need to be more "ready" to receive entering Kindergarteners and their families. Further research in collaboration with community child care providers, school districts, and state agencies can provide direction for policy decisions.

References:

Barnhart, J. & Sulzby, E. (1986). *How Johnny can write: Kindergarten children's uses of emergent writing systems.* Paper presented at the Annual Meeting of the American Educational Research Association in Chicago.

Boyd, J., Barnett, W.S., Bodrova, E., Leong, D. J. & Gomby, D. (2006). *Promoting children's social and emotional development through preschool education.* Rutgers, NJ: NIEERPreschool Policy Breief.

Burns, M.S. & Casbergue, R (1992). Parent-child ineraction in a letter-writing context. *Journal of Reading Behavior, 24*, 289-312.

Clements, D. (2004). Major themes and recommendations. In D.H. Clements & J. Sarama (Eds.) *Engaging young children in mathematics: Standards for early childhood mathematics education, (pp. 7-72).* Mahwah, NJ: Lawrence Erlbaum.

Copley, J.V. (2000). *The young child and mathematics.* Washington, DC: National Association for the Education of Young Children.

Diamond, K., Gerde, H. & Powell, D. (2003). *Emergent writing and the development of literacy skills in preschool children.* Unpublished manuscript, Purdue University, West Lafayette, IN.

Dickinson, D. K., & Tabors, P. O. (2001). *Beginning language with literacy*. Baltimore, MD: Paul H. Brookes Publishing.

Dunn, L. M, & Dunn, L. M. (1997). *Peabody Picture Vocabulary Test, Third Edition.* Circle Pines, MN: American Guidance Service.

Ginsburg, H. P., Klein, A., & Starkey, P. (1998). The development of children's mathematical thinking: Connecting research with practice. In W. Damon, I.E. Sigel, & K.A. Renninger (Eds.), *Handbook of child psychology. Volume 4: Child psychology in practice* (pp. 401-476). NY: John Wiley & Sons.

Ginsburg, H. P., Pappas, S., & Seo, K-H. (2001). Everyday mathematical knowledge: Asking young children what is developmentally appropriate. In S. L. Golbeck (Ed.). *Psychological perspectives on early childhood education: Reframing dilemmas in research and practice* (pp 181-219). Mahway, NJ: Erlbaum.

Griffin, S. (2004). In D.H. Clements & J.Sarama (Eds.) *Engaging young children in mathematics: Standards for early childhood mathematics education, (pp. 325-340).* Mahwah, NJ: Lawrence Erlbaum.

Klein, A. & Starkey, P. (2004). Fostering preschool children's mathematical knowledge:

Findings from the Berkeley math readiness project. In D.H. Clements & J.Sarama (Eds.) *Engaging young children in mathematics: Standards for early childhood mathematics education, (pp. 7-72).* Mahwah, NJ: Lawrence Erlbaum.

LewBuffe & Naglieri, (1999). *Devereux early childhood assessment*. Villanova, PA: The Devereux Foundation.

Love, A.,Burns, M.S. & Buell, M. J.(2007). Writing: Empowering literacy. *Young Children, 62,* 12-19.

Mayer, K.(2007). Emerging knowledge about emergent writing. *Young Children, 62,* 34-40.

National Council of Teachers of Mathematics (NCTM), (2000). Principles and standards for school mathematics. Reston, VA: Author,

Notari-Syverson, A. & Challoner, J. (2005). Supporting early literacy in natural environments for young children with disabilities. In E. Horn & H. Jones (Eds.) *Supporting early literacy development in young children.* Monograph Series 7, The Division for Early Childhood of the Council for Exceptional Children.

Qualls, A.L., Hoover, H.D., Dunbar, S.B. & Frisbie, D.A. (2003). *Qualls Early Learning Inventory*. Itasca, NY: Riverside Publishing.

Shonkoff, J.P. & Phillips, D. A. (2000*). From neurons to neighborhoods: The science of early childhood development.* Washington, DC: National Academic Press.

Sulzby, E., & Teale, W. H. (1991). Emergent literacy. In R. Barr, M. L. Kamil, B. Mostenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (pp. 173-206). Norwood, NJ: Ablex.

Thompson, R. A. & Raikes, H.A. (2007). The social and emotional foundations of school readiness. In D.F. Perry, R.K. Kaufmann & J. Knitzer's (Eds.) *Social & emotional health in Early childhood: Burilding bridges between services & systems, (pp. 13-35).* Baltimore: Paul H. Brookes.

Tolchinsky, L. (2003). *The cradle of culture and what children know about writing and numbers before being taught.* Mahwah, NJ: Erlbaum.

Wasik, B. (2006). Building vocabulary one word at a time. *Young Children, 61,* 70-77.

Whitehurst, G. & Lonigan, C. (1998). Child development and emergent literacy. *Child Development, 69,* 848-872.

Woodcock, R. W., McGrew, K. S., & Mather, N. (2001). *Woodcock-Johnson III-Tests of Achievement*. Itasca, NY: Riverside Publishing.

Appendix

Tables 5a, 5b, and 5c - Scores for children who took the measures:
Table 5a Social Skills for Included Sample
Table 5b Language and Literacy Scores from PPVT and TOPEL
Table 5c Academic Scores for Woodcock Johnson subtests (Letter-Word Identification, Applied Problems, Quantitative Concepts, Science, and Social Studies

Subgroups Social Skills, Language and Literacy, and Academic Scores:

Tables 6a, 6b, and 6c Congressional Districts (regions)
Tables 7a, 7b, and 7c Kansas Athletic Classes (size of schools)
Tables 8a, 8b, and 8c Race (White and non-white)
Tables 9a, 9b, and 9c Gender (male and female)
Tables 10a, 10b, and 10c Students with Special Needs (IEP)
Tables 11a, 11b, and 11c Free and Reduced Lunch (income)
Tables 12a, 12b, and 12c English Language Learners
Tables 13a, 13b, and 13c Preschool Attendance
Tables 14a and 14b Experience Outside the Home (Preschool, Head Start, Child Care)

Table 5a. Means, Standard Deviations, and other Relevant Statistics for Social Skills (DECA) for the Portion of the Sample Who Were Rated by Teachers

Social Skills (T-Scores, mean of 50, SD = 10)		**Ex-pected Scores**	**Initiative**	**Self-Control**	**Attach-ment**	**Total Prot. Factors ***	**Behav-ioral Concerns ****
N	Valid		644	597	643	597	613
	Missing		2023	2070	2024	2070	2054
Mean	51.1475			56.7521	48.3593	51.3987	47.3556
Std. Deviation	9.72331			9.36752	9.61308	9.84231	9.83312
Minimum	28.00			28.00	28.00	28.00	31.00
Maximum	72.00			72.00	72.00	72.00	72.00
Percentiles	5	*33.55*	34.0000	39.0000	31.4000	34.0000	34.0000
	10	*37.18*	38.0000	43.0000	36.0000	37.0000	34.0000
	15	*39.64*	42.0000	46.0000	38.0000	42.0000	37.0000
	20	*41.58*	43.0000	48.0000	41.0000	44.0000	39.0000
	25	*43.26*	45.2500	52.0000	42.0000	45.0000	39.0000
	30	*44.76*	47.0000	53.0000	44.0000	46.0000	42.0000
	40	*47.47*	50.0000	55.0000	46.0000	50.0000	44.0000
	50	*50.00*	51.0000	57.0000	48.0000	51.0000	47.0000
	60	*52.53*	53.0000	59.0000	50.0000	54.0000	49.0000
	70	*55.24*	56.0000	61.0000	52.0000	56.0000	52.0000
	75	*56.70*	58.0000	64.0000	54.0000	57.5000	54.0000
	80	*58.42*	59.0000	66.0000	56.0000	60.0000	57.0000
	90	*62.82*	64.0000	69.0000	61.0000	63.2000	62.0000
	95	*66.45*	67.5000	72.0000	64.0000	69.1000	65.0000

* Total Protective Factors are the combination of Initiative, Self-Control, and Attachment scores.

** Behavior Concern scores that are at or below the expected scores, indicate acceptable behavior.

Table 5b. Means, Standard Deviations, and other Relevant Statistics for Receptive Language (PPVT), Test of Preschool Early Literacy (TOPEL)

Language & Literacy Standard Scores, Mean of 100, SD=15	*Expected Score*	**PPVT**	**Definitional Vocabulary**	**Print Knowledge**	**Phonological Awareness**
N		693	609	466	580
Mean	*100.00*	102.60	106.69	105.68	99.76
Stand. Dev.	*15.00*	13.84	12.89	12.99	17.13
Score Range	*55 – 145*	42-153	55-127	70-139	55-129
Percentiles					
5	*75*	76.00	81.00	79.35	68.00
10	*81*	83.40	91.00	86.00	74.00
20	*87*	92.00	100.00	94.00	84.20
25	*90*	95.00	102.00	98.00	88.00
30	*92*	97.20	104.00	100.10	90.00
40	*96*	102.00	107.00	105.00	96.00
50	*100*	105.00	109.00	109.00	102.00
60	*104*	107.00	112.00	112.00	107.00
70	*108*	110.00	114.00	115.00	110.00
75	*110*	112.00	115.00	116.00	115.00
80	*113*	113.20	116.00	117.00	116.00
90	*119*	118.00	119.00	119.00	120.80
95	*125*	122.00	121.50	120.00	124.00

Table 5c. Means, Standard Deviations, and other Relevant Statistics for Subtests of the Woodcock Johnson Tests of Achievement (Academics)

		Letter Word ID Totals	Applied Problems Totals	Quantitative Concepts Totals	Science Totals	Social Studies Totals
N	Valid	710	701	700	740	737
	Missing	1957	1966	1967	1927	1930
Mean		11.9239	17.2411	8.4014	12.1595	11.1601
Median		12.0000	18.0000	8.0000	12.0000	11.0000
Std. Deviation		6.25706	3.90938	2.35729	1.92103	2.35478
Variance		39.151	15.283	5.557	3.690	5.545
Percentiles	5	3.0000	10.0000	4.0000	9.0000	7.0000
	10	5.0000	12.0000	5.0000	10.0000	8.0000
	25	8.0000	15.0000	7.0000	11.0000	10.0000
	50	12.0000	18.0000	8.0000	12.0000	11.0000
	75	15.0000	20.0000	10.0000	13.0000	13.0000
	90	17.0000	22.0000	11.0000	14.0000	14.0000
	95	20.4500	23.0000	12.0000	15.0000	15.0000

Table 6a. Results by Congressional Districts – Social Skills

Kansas Congressional Districts (T-Scores, mean of 50, SD = 10)			*Expected Scores*	DECA Social Skills Initiative	DECA Social Skills Self-Control	DECA Social Skills Attachment	DECA Social Skills Total Protective Factors	DECA Social Skills Behavioral Concerns
1 Jerry Moran-Central & Western	N	Valid		205	190	205	194	199
		Missing		651	666	651	662	657
	Mean			51.6195	56.4316	48.9902	51.5670	47.6131
	Std. Deviation			9.35423	9.07133	9.39023	9.28245	9.44607
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	46.0000	52.0000	44.0000	46.0000	39.0000
		50	*50.00*	52.0000	57.0000	48.0000	52.0000	47.0000
		75	*56.70*	58.0000	64.0000	54.0000	57.0000	54.0000
		95	*66.45*	66.0000	69.0000	64.0000	65.0000	65.0000
2 Nancy Boyda-Eastern except KC	N	Valid		133	124	133	126	127
		Missing		444	453	444	451	450
	Mean			50.5940	57.2581	47.6617	51.1032	47.2835
	Std. Deviation			10.24328	8.80398	9.93684	10.10491	9.74590
	Range			44.00	38.00	44.00	42.00	41.00
	Percentiles	25	*43.26*	43.0000	52.2500	40.0000	44.0000	39.0000
		50	*50.00*	51.0000	57.0000	46.0000	51.0000	47.0000
		75	*56.70*	58.0000	64.0000	54.0000	57.2500	55.0000
		95	*66.45*	68.6000	71.5000	68.0000	70.0000	64.0000
3 Dennis Moore-KC Metro area	N	Valid		90	84	89	80	87
		Missing		355	361	356	365	358
	Mean			52.5556	58.9881	49.5955	53.5875	46.7011
	Std. Deviation			8.91673	9.07730	9.58185	9.04796	9.39088
	Range			42.00	39.00	44.00	42.00	41.00
	Percentiles	25	*43.26*	47.0000	53.5000	44.0000	48.0000	39.0000
		50	*50.00*	52.0000	59.0000	50.0000	52.0000	47.0000
		75	*56.70*	58.0000	68.0000	56.0000	58.0000	52.0000
		95	*66.45*	68.7000	72.0000	68.0000	71.8500	65.0000
4 Todd Tiahart-Wichita & south	N	Valid		216	199	216	197	200
		Missing		572	589	572	591	588
	Mean			50.4537	55.7990	47.6806	50.5330	47.4300
	Std. Deviation			10.03379	9.98027	9.60740	10.43127	10.49121
	Range			44.00	41.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	45.0000	48.0000	41.0000	44.5000	39.0000
		50	*50.00*	51.0000	55.0000	48.0000	50.0000	47.0000
		75	*56.70*	58.0000	64.0000	54.0000	57.5000	54.7500
		95	*66.45*	68.0000	72.0000	64.6000	72.0000	67.9000

Table 6b. Results by Congressional Districts for Language & Literacy Measures (PPVT and TOPEL)

Kansas Congressional Districts Standard Scores, Mean of 100, SD=15			*Expected Score*	**TOPEL PPVT Receptive Vocab. Standard**	**TOPEL Definitional Vocabulary Standard score**	**TOPEL Phono-logical Awareness standard score'**	**TOPEL Print Knowledge standard score**
1 – Jerry Moran-Central & Western	N	Valid		233	175	165	128
		Missing		624	682	692	729
	Mean			99.67	105.2171	101.3455	105.6484
	Std. Deviation			26.862	14.31857	16.67796	13.04661
	Percentiles	25	*90*	93.00	101.0000	90.0000	98.2500
		50	*100*	105.00	109.0000	102.0000	109.0000
		75	*110*	112.00	115.0000	116.0000	116.7500
2 - Nancy Boyda-Eastern except KC	N	Valid		166	146	124	109
		Missing		410	430	452	467
	Mean			102.59	109.0753	100.9032	104.7706
	Std. Deviation			13.460	10.24667	17.26052	13.13790
	Percentiles	25	*90*	95.00	105.0000	88.0000	94.0000
		50	*100*	104.00	110.0000	104.0000	107.0000
		75	*110*	111.00	116.0000	116.0000	116.5000
3 - Dennis Moore-KC Metro area	N	Valid		102	93	98	81
		Missing		343	352	347	364
	Mean			105.11	110.7957	98.5714	108.0617
	Std. Deviation			15.677	11.38321	17.23578	11.83147
	Percentiles	25	*90*	97.00	107.0000	85.0000	100.5000
		50	*100*	106.00	114.0000	102.0000	111.0000
		75	*110*	115.25	117.5000	110.7500	117.0000
4 – Todd Tiahart-Wichita & south	N	Valid		199	195	193	148
		Missing		589	593	595	640
	Mean			100.48	104.2872	98.2902	105.0878
	Std. Deviation			14.974	13.28784	17.33730	13.40267
	Percentiles	25	*90*	93.00	100.0000	85.0000	96.0000
		50	*100*	103.00	108.0000	101.0000	108.5000
		75	*110*	110.00	113.0000	113.0000	116.0000

Table 6c. Results by Congressional Districts for Woodcock Johnson Sub-tests (Academics)

Kansas Congressional Districts	**Letter Word ID Totals**	**Applied Problems Totals**	**Quantitative Concepts Totals**	**Science Totals**	**Social Studies Totals**

1 Jerry Moran-Central & Western	N	Valid	250	230	230	239	238
		Missing	606	626	626	617	618
	Mean		11.5080	17.6826	8.4739	12.0711	10.8950
	Median		12.0000	18.0000	8.0000	12.0000	11.0000
	Std. Deviation		5.30306	3.76367	2.25197	1.76544	2.08306
	Percentiles	5	3.0000	10.5500	4.5500	9.0000	7.0000
		10	4.0000	12.0000	6.0000	10.0000	8.0000
		25	8.7500	15.0000	7.0000	11.0000	10.0000
		50	12.0000	18.0000	8.0000	12.0000	11.0000
		75	14.0000	20.0000	10.0000	13.0000	12.0000
		90	17.0000	22.0000	11.0000	14.0000	13.0000
		95	19.0000	23.0000	12.0000	14.0000	14.0000
2 - Nancy Boyda-Eastern except KC	N	Valid	154	153	152	167	167
		Missing	423	424	425	410	410
	Mean		11.2922	16.8431	7.9276	12.1976	11.5749
	Median		11.0000	17.0000	8.0000	12.0000	12.0000
	Std. Deviation		5.84766	3.52457	2.11304	1.80107	1.98915
	Percentiles	5	3.0000	10.0000	4.0000	9.0000	8.4000
		10	4.0000	12.0000	5.0000	10.0000	9.0000
		25	8.0000	14.0000	7.0000	11.0000	10.0000
		50	11.0000	17.0000	8.0000	12.0000	12.0000
		75	14.0000	19.0000	9.0000	13.0000	13.0000
		90	16.0000	20.0000	10.0000	14.0000	14.0000
		95	20.2500	23.0000	11.0000	15.0000	15.0000
3 - Dennis Moore-KC Metro area	N	Valid	124	104	105	132	131
		Missing	321	341	340	313	314
	Mean		13.4758	17.9712	9.0857	12.9242	11.9237
	Median		13.0000	19.0000	9.0000	13.0000	12.0000
	Std. Deviation		8.59709	4.16517	2.46168	1.81857	2.53474
	Percentiles	5	4.0000	10.0000	5.0000	10.0000	8.0000
		10	5.0000	12.0000	6.0000	11.0000	9.0000
		25	9.0000	15.0000	8.0000	12.0000	11.0000
		50	13.0000	19.0000	9.0000	13.0000	12.0000
		75	15.0000	21.0000	11.0000	14.0000	13.0000
		90	19.0000	22.5000	12.0000	15.0000	15.0000
		95	32.0000	23.7500	13.0000	16.0000	16.0000
4 – Todd Tiahart-Wichita & south	N	Valid	182	214	213	202	201
		Missing	606	574	575	586	587
	Mean		11.9725	16.6963	8.3239	11.7327	10.6318
	Median		12.0000	17.0000	8.0000	12.0000	11.0000
	Std. Deviation		5.77136	4.10614	2.50720	2.11317	2.62941
	Percentiles	5	4.0000	9.0000	4.0000	8.0000	6.0000
		10	5.0000	11.0000	5.0000	9.0000	7.0000
		25	8.0000	14.0000	7.0000	11.0000	9.0000
		50	12.0000	17.0000	8.0000	12.0000	11.0000
		75	15.0000	20.0000	10.0000	13.0000	12.0000
		90	17.7000	22.0000	11.0000	14.0000	14.0000

	95	20.8500	23.0000	13.0000	15.0000	14.9000

Table 7a. Kansas Athletic Classes (Size of Schools) Combined – Social Skills

Athletic Class (T-Scores, mean of 50, SD = 10)			*Expected Score*	**DECA Social Skills Initiative**	**DECA Social Skills Self-Control**	**DECA Social Skills Attach-ment**	**DECA Social Skills Total Protective Factors**	**DECA Social Skills Behavior-al Concerns**
1A & 2AA	N	Valid		106	101	106	99	101
		Missing		310	315	310	317	315
	Mean			52.1132	58.1584	50.4151	53.0404	47.0792
	Std. Deviation			11.16058	8.71175	10.04928	10.43534	9.47279
	Range			44.00	42.00	44.00	44.00	41.00
	Percentiles	25	43.26	45.0000	52.0000	44.0000	47.0000	39.0000
		50	50.00	53.0000	59.0000	50.0000	54.0000	47.0000
		75	56.70	59.0000	66.0000	56.0000	60.0000	55.0000
		95	66.45	72.0000	72.0000	68.0000	72.0000	63.0000
3A & 4A	N	Valid		242	224	242	227	236
		Missing		734	752	734	749	740
	Mean			51.1653	55.9286	48.0744	50.9824	47.4661
	Std. Deviation			9.29538	9.21756	9.44973	9.70082	9.32640
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	46.0000	50.0000	42.0000	45.0000	39.0000
		50	*50.00*	52.0000	57.0000	48.0000	51.0000	47.0000
		75	*56.70*	56.0000	63.2500	54.0000	57.0000	53.5000
		95	*66.45*	66.0000	70.0000	64.0000	66.0000	65.0000
5 A & 6A	N	Valid		296	272	295	271	276
		Missing		976	1000	977	1001	996
	Mean			50.7872	56.9081	47.8542	51.1476	47.3623
	Std. Deviation			9.52278	9.68216	9.52275	9.71293	10.40101
	Range			44.00	41.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	45.0000	50.0000	41.0000	46.0000	39.0000
		50	*50.00*	51.0000	57.0000	48.0000	51.0000	47.0000
		75	*56.70*	58.0000	64.0000	54.0000	57.0000	54.0000
		95	*66.45*	66.3000	72.0000	64.0000	70.0000	66.0000

Table 7b. Academic Measures for Kansas Athletic Classes (PPVT and TOPEL)

KS Athletic Classes (combined) 1=1A & 2A, 2 = 3A & 4A or medium sized districts; 3 = 5A & 6A, or larger districts Standard Scores, Mean of 100, SD=15			*Expect-ed Score*	**PPVT Receptive Vocab. Standard score**	**TOPEL Definitional Vocabulary Standard score**	**TOPEL Phonological Awareness standard score'**	**TOPEL Print Knowledge standard score**
1, smaller Kansas districts	N	Valid		125	89	82	67
		Missing		292	328	335	350
	Mean			102.98	109.1348	102.3659	106.1045
	Std. Deviation			22.729	11.07227	18.43474	12.77324
	Percentiles	25	*90*	98.00	105.0000	91.5000	99.0000
		50	*100*	106.00	112.0000	107.0000	109.0000
		75	*110*	113.00	116.0000	116.5000	117.0000
2, medium size Kansas districts	N	Valid		252	213	192	152
		Missing		724	763	784	824
	Mean			102.76	106.7324	101.2552	106.0724
	Std. Deviation			21.730	11.80417	15.13197	13.29896
	Percentiles	25	*90*	97.00	102.0000	90.0000	98.0000
		50	*100*	106.50	109.0000	101.0000	110.0000
		75	*110*	112.00	114.0000	114.5000	116.0000
3.00, Larger Kansas Districts	N	Valid		323	307	306	247
		Missing		950	966	967	1026
	Mean			99.69	105.9642	98.1340	105.3320
	Std. Deviation			16.221	13.99750	17.82111	12.89810
	Percentiles	25	*90*	90.00	101.0000	85.0000	96.0000
		50	*100*	102.00	109.0000	101.0000	108.0000
		75	*110*	110.00	115.0000	113.0000	116.0000

Table 7c. Woodcock Johnson Academic Measures for Kansas Athletic Classes

Kansas Athletic Classes			Letter Word ID Totals	Applied Problems Totals	Quantitative Concepts Totals	Science Totals	Social Studies Totals
1A	N	Valid	59	39	39	52	52
		Missing	122	142	142	129	129
	Mean		12.6102	17.2308	8.7436	12.4038	11.2692
	Median		13.0000	17.0000	8.0000	12.5000	11.0000
	Std. Deviation		5.77455	4.03577	2.33642	1.51152	2.25019
	Percentiles	5	4.0000	10.0000	5.0000	9.0000	7.0000
		10	5.0000	10.0000	6.0000	10.0000	8.3000
		25	9.0000	15.0000	7.0000	12.0000	10.0000
		50	13.0000	17.0000	8.0000	12.5000	11.0000
		75	15.0000	20.0000	10.0000	13.0000	13.0000
		90	18.0000	23.0000	12.0000	14.0000	14.0000
		95	19.0000	24.0000	12.0000	15.0000	15.0000
2A	N	Valid	61	61	61	63	63
		Missing	171	171	171	169	169
	Mean		12.4754	17.9016	8.1803	12.5714	11.3016
	Median		12.0000	19.0000	8.0000	13.0000	11.0000
	Std. Deviation		6.05422	3.85878	2.27675	1.46699	2.10709
	Percentiles	5	6.0000	10.1000	4.0000	10.0000	7.0000
		10	6.2000	13.0000	5.0000	11.0000	9.0000
		25	9.0000	15.5000	7.0000	11.0000	10.0000
		50	12.0000	19.0000	8.0000	13.0000	11.0000
		75	15.0000	20.0000	10.0000	14.0000	13.0000
		90	17.0000	23.0000	11.0000	14.0000	14.0000
		95	21.9000	24.0000	12.0000	14.8000	15.0000
3A	N	Valid	106	90	90	110	110
		Missing	253	269	269	249	249
	Mean		11.1321	17.2222	8.3000	12.2636	11.2818
	Median		12.0000	17.0000	8.0000	12.0000	11.0000
	Std. Deviation		4.16579	3.41437	2.16432	1.74880	1.87270
	Percentiles	5	2.3500	11.0000	4.5500	9.0000	8.0000
		10	4.0000	12.0000	5.1000	10.0000	9.0000
		25	8.7500	15.0000	7.0000	11.0000	10.0000
		50	12.0000	17.0000	8.0000	12.0000	11.0000
		75	14.0000	20.0000	10.0000	13.2500	12.0000
		90	15.3000	22.0000	11.0000	14.0000	14.0000
		95	17.0000	23.0000	12.0000	15.0000	14.0000
4A	N	Valid	173	192	192	156	155
		Missing	445	426	426	462	463
	Mean		11.7919	17.5000	8.5417	12.4295	11.6000
	Median		12.0000	18.0000	8.5000	12.0000	11.0000
	Std. Deviation		6.24244	3.91934	2.32184	1.77114	2.02452
	Percentiles	5	3.0000	10.6500	5.0000	9.0000	9.0000
		10	5.0000	12.0000	6.0000	11.0000	9.6000
		25	8.0000	15.0000	7.0000	12.0000	10.0000
		50	12.0000	18.0000	8.5000	12.0000	11.0000

		75	14.0000	21.0000	10.0000	13.0000	13.0000
		90	17.0000	22.0000	11.0000	15.0000	14.0000
		95	19.3000	23.0000	13.0000	15.0000	16.0000
5A	N	Valid	50	44	45	54	53
		Missing	127	133	132	123	124
	Mean		10.4400	17.2045	7.9556	11.9259	10.8679
	Median		10.0000	18.0000	8.0000	12.0000	11.0000
	Std. Deviation		5.73268	4.08958	2.12084	1.73588	2.38616
	Percentiles	5	2.0000	10.0000	3.3000	9.0000	6.7000
		10	4.0000	11.0000	5.0000	10.0000	7.4000
		25	5.0000	16.0000	7.0000	11.0000	9.0000
		50	10.0000	18.0000	8.0000	12.0000	11.0000
		75	14.2500	20.0000	10.0000	13.0000	13.0000
		90	15.9000	22.0000	10.0000	14.0000	13.6000
		95	24.9000	24.0000	10.7000	14.2500	14.0000
6A	N	Valid	261	275	273	305	304
		Missing	835	821	823	791	792
	Mean		12.3333	16.9273	8.4103	11.8984	10.8947
	Median		12.0000	17.0000	8.0000	12.0000	11.0000
	Std. Deviation		7.13065	4.02027	2.50004	2.18235	2.68146
	Percentiles	5	3.1000	9.8000	4.0000	8.0000	6.0000
		10	4.0000	11.0000	5.0000	9.0000	7.0000
		25	8.0000	14.0000	7.0000	11.0000	10.0000
		50	12.0000	17.0000	8.0000	12.0000	11.0000
		75	15.0000	20.0000	10.0000	13.0000	13.0000
		90	19.0000	22.0000	11.0000	14.0000	14.0000
		95	23.0000	23.0000	13.0000	15.0000	15.0000

Table 8a. Population Race, Majority /Minority Social Skills

Race of population comparing two groups (T-Scores, mean of 50, SD = 10)			*Expected Score*	**DECA Social Skills Initiative**	**DECA Social Skills Self-Control**	**DECA Social Skills Attach-ment**	**DECA Social Skills Total Protective Factors**	**DECA Social Skills Behav-ioral Concerns**
White, Anglo Saxon	N	Valid		489	457	488	454	466
		Missing		1547	1579	1548	1582	1570
	Mean			51.8344	56.8184	49.0738	51.9405	46.9163
	Std. Deviation			9.84278	9.19214	9.81506	9.95014	9.72766
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	46.0000	52.0000	42.0000	46.0000	39.0000
		50	*50.00*	52.0000	57.0000	48.0000	52.0000	47.0000
		75	*56.70*	58.0000	64.0000	54.0000	58.0000	54.0000
		95	*66.45*	69.0000	72.0000	68.0000	70.0000	65.0000
Other Than White	N	Valid		155	140	155	143	147
		Missing		473	488	473	485	481
	Mean			48.9806	56.5357	46.1097	49.6783	48.7483
	Std. Deviation			9.02915	9.94981	8.59596	9.31801	10.06747
	Range			44.00	39.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	45.0000	50.0000	41.0000	45.0000	42.0000
		50	*50.00*	50.0000	57.0000	46.0000	50.0000	47.0000
		75	*56.70*	55.0000	64.0000	52.0000	55.0000	57.0000
		95	*66.45*	62.0000	72.0000	61.0000	63.0000	68.6000

Table 8b. Population Race, Majority / Minority Academics (PPVT and TOPEL)

Race of population, comparing two groups Standard Scores, Mean of 100, SD=15			*Expected Score*	**PPVT Receptive Vocab. Standard score**	**TOPEL Definitional Vocabulary Standard score**	**TOPEL Phonological Awareness standard score'**	**TOPEL Print Knowledge standard score**
White, Anglo Saxon	N	Valid		539	486	438	373
		Missing		1497	1550	1598	1663
	Mean			104.29	108.5988	102.3059	106.6729
	Std. Deviation			17.270	10.57821	16.03850	12.43068
	Percentiles	25	*90*	98.00	104.0000	90.0000	99.0000
		50	*100*	106.00	110.0000	105.0000	110.0000
		75	*110*	113.00	115.0000	116.0000	117.0000
Other Than White	N	Valid		161	123	142	93
		Missing		469	507	488	537
	Mean			91.63	99.1789	91.9296	101.7204
	Std. Deviation			23.542	17.64775	18.05533	14.43002
	Percentiles	25	*90*	80.00	90.0000	79.0000	90.5000
		50	*100*	95.00	105.0000	90.0000	103.0000
		75	*110*	106.00	112.0000	105.5000	116.0000

Table 8c. Population Race, Majority / Minority Woodcock Johnson Subtests

Race			Letter Word ID Totals	Applied Problems Totals	Quantitative Concepts Totals	Science Totals	Social Studies Totals
White, Anglo Saxon	N	Valid	539	547	547	557	556
		Missing	1497	1489	1489	1479	1480
	Mean		12.2245	17.6508	8.6984	12.5117	11.5378
	Median		12.0000	18.0000	9.0000	13.0000	12.0000
	Std. Deviation		6.39758	3.64503	2.20108	1.72954	2.07872
	Percentiles	5	4.0000	11.0000	5.0000	10.0000	8.0000
		10	5.0000	13.0000	6.0000	10.0000	9.0000
		25	9.0000	15.0000	7.0000	12.0000	10.0000
		50	12.0000	18.0000	9.0000	13.0000	12.0000
		75	15.0000	20.0000	10.0000	14.0000	13.0000
		90	18.0000	22.0000	11.2000	14.0000	14.0000
		95	22.0000	23.0000	12.0000	15.0000	15.0000
Other Than White	N	Valid	171	154	153	183	181
		Missing	457	474	475	445	447
	Mean		10.9766	15.7857	7.3399	11.0874	10.0000
	Median		11.0000	16.0000	8.0000	11.0000	10.0000
	Std. Deviation		5.70650	4.44717	2.58834	2.07629	2.74874
	Percentiles	5	2.0000	9.0000	3.0000	7.2000	5.0000
		10	4.0000	10.0000	4.0000	9.0000	6.0000
		25	7.0000	12.0000	6.0000	10.0000	8.5000
		50	11.0000	16.0000	8.0000	11.0000	10.0000
		75	14.0000	19.0000	9.0000	12.0000	12.0000
		90	16.8000	22.0000	10.0000	13.6000	13.0000
		95	19.0000	23.0000	11.0000	14.8000	14.0000

Table 9a - Gender, Social Skills Results

Gender			*Expect-ed Score*	**DECA Social Skills Initiative**	**DECA Social Skills Self-Control**	**DECA Social Skills Attach-ment**	**DECA Social Skills Total Protective Factors**	**DECA Social Skills Behav-ioral Concerns**
Female	N	Valid		318	294	318	293	295
		Missing		997	1021	997	1022	1020
	Mean			52.5943	58.4082	50.0786	53.3823	45.2068
	Std. Deviation			9.68277	9.11493	9.50096	9.68320	9.13772
	Range			44.00	41.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	47.0000	52.7500	44.0000	48.0000	39.0000
		50	*50.00*	53.0000	59.0000	50.0000	52.0000	44.0000
		75	*56.70*	59.0000	66.0000	56.0000	60.0000	52.0000
		95	*66.45*	70.0000	72.0000	68.0000	72.0000	62.0000
Male	N	Valid		326	303	325	304	318
		Missing		1021	1044	1022	1043	1029
	Mean			49.7362	55.1452	46.6769	49.4868	49.3491
	Std. Deviation			9.56843	9.34398	9.43677	9.62874	10.04725
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	43.0000	48.0000	40.0000	44.0000	42.0000
		50	*50.00*	50.5000	57.0000	46.0000	50.0000	49.0000
		75	*56.70*	56.0000	61.0000	52.0000	56.0000	57.0000
		95	*66.45*	66.0000	69.0000	64.0000	65.0000	66.0000

Table 9b – Gender, Academics (PPVT and TOPEL)

Gender Standard Scores, Mean of 100, SD=15			*Expected Score*	**PPVT Receptive Vocab. Standard score**	**TOPEL Definitional Vocabulary Standard score**	**TOPEL Phonological Awareness standard score'**	**TOPEL Print Knowledge standard score**
Female	N	Valid		348	317	282	234
		Missing		968	999	1034	1082
	Mean			101.13	107.9527	101.0638	107.2821
	Std. Deviation			21.168	11.45717	17.54981	11.70954
	Percentiles	25	*90*	94.00	104.0000	88.7500	100.0000
		50	*100*	105.00	110.0000	104.0000	111.0000
		75	*110*	112.00	115.0000	116.0000	117.0000
Male	N	Valid		352	291	298	231
		Missing		995	1056	1049	1116
	Mean			101.63	105.3162	98.5369	104.0476
	Std. Deviation			17.981	14.19457	16.66162	14.03141
	Percentiles	25	*90*	95.00	100.0000	85.0000	94.0000
		50	*100*	105.00	109.0000	101.0000	108.0000
		75	*110*	111.00	114.0000	113.0000	116.0000

Table 9c – Gender, Woodcock Johnson Results (Academics)

Gender			Letter Word ID Totals	Applied Problems Totals	Quantitative Concepts Totals	Science Totals	Social Studies Totals
Female	N	Valid	356	364	363	354	353
		Missing	959	951	952	961	962
	Mean		12.1348	17.2143	8.3774	12.2345	11.0935
	Median		12.0000	18.0000	8.0000	12.0000	11.0000
	Std. Deviation		6.06480	3.73771	2.29056	1.84647	2.42847
	Percentiles	5	3.0000	10.0000	4.0000	9.0000	6.7000
		10	5.0000	12.0000	5.4000	10.0000	8.0000
		25	9.0000	15.0000	7.0000	11.0000	10.0000
		50	12.0000	18.0000	8.0000	12.0000	11.0000
		75	15.0000	20.0000	10.0000	13.0000	13.0000
		90	18.0000	22.0000	11.0000	14.0000	14.0000
		95	20.0000	23.0000	12.0000	15.0000	15.0000
Male	N	Valid	354	337	337	384	382
		Missing	993	1010	1010	963	965
	Mean		11.7119	17.2700	8.4273	12.0833	11.2120
	Median		11.5000	18.0000	8.0000	12.0000	11.0000
	Std. Deviation		6.44625	4.09210	2.43026	1.98909	2.28760
	Percentiles	5	3.0000	10.0000	4.0000	9.0000	7.0000
		10	4.5000	12.0000	5.0000	10.0000	8.0000
		25	8.0000	14.0000	7.0000	11.0000	10.0000
		50	11.5000	18.0000	8.0000	12.0000	11.0000
		75	14.0000	20.0000	10.0000	13.0000	13.0000
		90	16.0000	22.0000	11.2000	15.0000	14.0000
		95	22.2500	23.0000	13.0000	15.0000	15.0000

Table 10a. Students with Identified Special Education Needs – Social Skills

Statistics

Individualized Educational Plan (T-Scores, mean of 50, SD = 10)			*Expected Score*	**DECA Social Skills Initiative**	**DECA Social Skills Self-Control**	**DECA Social Skills Attachment**	**DECA Social Skills Total Protective Factors**	**DECA Social Skills Behav-ioral Concerns**
IEP	N	Valid		87	78	87	84	85
		Missing		231	240	231	234	233
	Mean			45.1034	51.1154	44.7701	45.4048	53.4941
	Std. Deviation			10.37106	10.77633	10.42325	10.85848	10.71450
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	38.0000	42.5000	38.0000	36.2500	44.0000
		50	*50.00*	45.0000	52.0000	44.0000	44.5000	54.0000
		75	*56.70*	53.0000	59.0000	52.0000	54.0000	62.5000
		95	*66.45*	61.0000	69.0500	66.4000	63.0000	69.7000
No IEP	N	Valid		557	519	556	513	528
		Missing		1789	1827	1790	1833	1818
	Mean			52.0916	57.5992	48.9209	52.3801	46.3674
	Std. Deviation			9.27850	8.84297	9.36627	9.31616	9.32369
	Range			44.00	41.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	46.0000	52.0000	42.0000	46.0000	39.0000
		50	*50.00*	52.0000	59.0000	48.0000	52.0000	44.0000
		75	*56.70*	58.0000	64.0000	54.0000	58.0000	52.0000
		95	*66.45*	68.0000	72.0000	64.0000	70.0000	64.0000

Table 10b. Students with Identified Special Education Needs - Academics

Students with Individual Education Plans (IEPs) Standard Scores, Mean of 100, SD=15			*Expected Score*	**PPVT Receptive Vocab. Standard score**	**TOPEL Definitional Vocabulary Standard score**	**TOPEL Phonological Awareness standard score'**	**TOPEL Print Knowledge standard score**
With IEPs	N	Valid		83	56	62	48
		Missing		235	262	256	270
	Mean			95.10	103.4643	93.5806	99.1042
	Std. Deviation			27.346	14.46747	19.39372	14.28172
	Percentiles	25	*90*	88.00	98.5000	80.5000	87.0000
		50	*100*	100.00	108.0000	93.0000	101.5000
		75	*110*	110.00	112.0000	110.0000	110.7500
With-Out IEPs	N	Valid		617	553	518	418
		Missing		1731	1795	1830	1930
	Mean			102.23	107.0235	100.5058	106.4402
	Std. Deviation			18.197	12.68491	16.70795	12.63403
	Percentiles	25	*90*	96.00	103.0000	89.0000	98.7500
		50	*100*	105.00	110.0000	102.0000	110.0000
		75	*110*	112.00	115.0000	115.0000	117.0000

Table 10c. Students with Identified Special Education Needs – Woodcock Johnson Subtest Results (Academics)

IEP			Letter Word ID Totals	Applied Problems Totals	Quantitative Concepts Totals	Science Totals	Social Studies Totals
Students with Some Disability Listed	N	Valid	84	74	75	88	86
		Missing	234	244	243	230	232
	Mean		10.3214	15.9189	7.5600	11.6477	10.5233
	Median		10.5000	16.0000	8.0000	12.0000	11.0000
	Std. Deviation		4.18592	4.29959	2.30299	2.18164	2.56550
	Percentiles	5	2.2500	8.7500	3.0000	7.4500	6.3500
		10	4.0000	9.0000	4.0000	9.0000	7.0000
		25	8.0000	13.0000	6.0000	11.0000	9.0000
		50	10.5000	16.0000	8.0000	12.0000	11.0000
		75	13.0000	19.0000	9.0000	13.0000	12.0000
		90	15.0000	22.0000	10.4000	14.0000	13.3000
		95	16.0000	22.0000	12.0000	15.0000	16.0000
No Identified Disability	N	Valid	626	627	625	652	651
		Missing	1720	1719	1721	1694	1695
	Mean		12.1390	17.3971	8.5024	12.2285	11.2442
	Median		12.0000	18.0000	9.0000	12.0000	11.0000
	Std. Deviation		6.45711	3.83446	2.34529	1.87429	2.31456
	Percentiles	5	3.3500	10.0000	4.0000	9.0000	7.0000
		10	5.0000	12.0000	6.0000	10.0000	8.0000
		25	8.0000	15.0000	7.0000	11.0000	10.0000
		50	12.0000	18.0000	9.0000	12.0000	11.0000
		75	15.0000	20.0000	10.0000	13.0000	13.0000
		90	18.0000	22.0000	11.0000	14.0000	14.0000
		95	21.6500	23.0000	12.0000	15.0000	15.0000

Table 11a. Free and Reduced Lunch – Social Skills

Statistics

Free and Reduced Lunch Support (T-Scores, mean of 50, SD = 10)			*Expected Score*	**DECA Social Skills Initiative**	**DECA Social Skills Self-Control**	**DECA Social Skills Attachment**	**DECA Social Skills Total Protective Factors**	**DECA Social Skills Behav-ioral Concerns**
.Free and Reduced	N	Valid		298	271	297	275	290
		Missing		910	937	911	933	918
	Mean			48.7383	55.0185	46.3906	48.7564	49.2621
	Std. Deviation			9.36423	9.54539	8.92966	9.26942	10.17699
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	43.0000	48.0000	41.0000	42.0000	42.0000
		50	*50.00*	50.0000	55.0000	46.0000	50.0000	49.0000
		75	*56.70*	55.0000	61.0000	52.0000	55.0000	57.0000
		95	*66.45*	64.0000	70.0000	64.0000	63.0000	66.0000
No Subsidy	N	Valid		346	326	346	322	323
		Missing		1110	1130	1110	1134	1133
	Mean			53.2225	58.1933	50.0491	53.6553	45.6440
	Std. Deviation			9.55956	8.97978	9.86667	9.76878	9.19797
	Range			44.00	39.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	47.0000	53.0000	44.0000	47.7500	39.0000
		50	*50.00*	53.0000	59.0000	50.0000	54.0000	44.0000
		75	56.70	59.0000	66.0000	56.0000	60.2500	52.0000
		95	66.45	72.0000	72.0000	68.0000	72.0000	64.0000

Table 11b. Free or Reduced Lunch, Academics (PPVT and TOPEL)

Free and Reduced Lunch / No Subsidy Standard Scores, Mean of 100, SD=15			Expected Score	**PPVT Receptive Vocab. Standard score**	**TOPEL Definitional Vocabulary Standard score**	**TOPEL Phonological Awareness standard score**	**TOPEL Print Knowledge standard score**
Free & Reduced	N	Valid		318	247	274	191
		Missing		890	961	934	1017
	Mean			94.19	102.8381	95.3431	102.0681
	Std. Deviation			24.776	15.08829	17.61989	13.82791
	Percentiles	25%	*90*	86.00	97.0000	83.0000	92.0000
	& Expected	50	*100*	97.00	106.0000	96.0000	104.0000
	Values	75	*110*	107.00	113.0000	110.0000	115.0000
No Subsidy	N	Valid		382	362	306	275
		Missing		1076	1096	1152	1183
	Mean			107.37	109.3287	103.7255	108.1964
	Std. Deviation			10.779	10.36560	15.68219	11.76122
	Percentiles	25	*90*	102.00	105.0000	93.0000	102.0000
		50	*100*	108.00	112.0000	107.0000	111.0000
		75	*110*	114.00	116.0000	116.0000	117.0000

Table 11c. Free or Reduced Lunch, Woodcock Johnson (Academics)

Free and Reduced Lunch as a Proxy for Income			Letter Word ID Totals	Applied Problems Totals	Quantitative Concepts Totals	Science Totals	Social Studies Totals
Receive Free and/or Reduced Lunch	N	Valid	321	302	303	347	344
		Missing	887	906	905	861	864
	Mean		10.1745	16.0298	7.4620	11.4179	10.3983
	Median		10.0000	16.5000	8.0000	12.0000	11.0000
	Std. Deviation		5.12172	3.82540	2.21771	1.89646	2.41740
	Percentiles	5	3.0000	9.0000	3.0000	8.0000	6.0000
		10	4.0000	10.0000	4.0000	9.0000	7.0000
		25	6.0000	13.0000	6.0000	10.0000	9.0000
		50	10.0000	16.5000	8.0000	12.0000	11.0000
		75	13.0000	19.0000	9.0000	13.0000	12.0000
		90	15.0000	21.0000	10.0000	14.0000	13.0000
		95	17.9000	22.0000	11.0000	14.0000	14.0000
Not eligible for Subsidy	N	Valid	389	399	397	393	393
		Missing	1067	1057	1059	1063	1063
	Mean		13.3676	18.1579	9.1184	12.8142	11.8270
	Median		13.0000	19.0000	9.0000	13.0000	12.0000
	Std. Deviation		6.72938	3.72249	2.20619	1.69290	2.08385
	Percentiles	5	5.0000	11.0000	5.0000	10.0000	8.7000
		10	6.0000	13.0000	6.0000	11.0000	9.0000
		25	10.0000	16.0000	8.0000	12.0000	10.0000
		50	13.0000	19.0000	9.0000	13.0000	12.0000
		75	15.0000	21.0000	10.0000	14.0000	13.0000
		90	19.0000	23.0000	12.0000	15.0000	15.0000
		95	23.5000	24.0000	13.0000	16.0000	16.0000

Table 12a. English Language Learners - Social Skills

English Language Learners . (T-Scores, mean of 50, SD = 10)			Expected Score	DECA Social Skills Initiative	DECA Social Skills Self-Control	DECA Social Skills Attach-ment	DECA Social Skills Total Protective Factors	DECA Social Skills Behav-ioral Concerns
ELL	N	Valid		77	69	77	69	74
		Missing		182	190	182	190	185
	Mean			47.9610	56.9565	45.8182	49.2029	47.9730
	Std. Deviation			8.31998	8.51372	8.31253	8.32886	9.04475
	Range			34.00	39.00	40.00	33.00	38.00
	Percentiles	25	*43.26*	42.5000	53.0000	41.0000	46.0000	41.2500
		50	*50.00*	48.0000	57.0000	46.0000	50.0000	47.0000
		75	*56.70*	55.0000	62.5000	50.0000	55.0000	52.5000
		95	*66.45*	61.0000	69.0000	61.0000	62.0000	65.2500
Non-ELL	N	Valid		567	528	566	528	539
		Missing		1838	1877	1839	1877	1866
	Mean			51.5802	56.7254	48.7049	51.6856	47.2709
	Std. Deviation			9.82552	9.48055	9.73196	9.99448	9.94132
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	46.0000	50.5000	42.0000	45.0000	39.0000
		50	*50.00*	52.0000	57.0000	48.0000	52.0000	47.0000
		75	*56.70*	58.0000	64.0000	54.0000	58.0000	54.0000
		95	*66.45*	68.0000	72.0000	64.0000	70.0000	65.0000

Table 12b. English Language Learners – PPVT and TOPEL (Academics)

English Language Learners Standard Scores, Mean of 100, SD=15			*Expected Score*	**PPVT Receptive Vocab. Standard score**	**TOPEL Definitional Vocabulary Standard score**	**TOPEL Phonological Awareness standard score'**	**TOPEL Print Knowledge standard score**
English Lang. Learners	N	Valid		53	51	54	38
		Missing		206	208	205	221
	Mean			74.13	89.4314	85.1852	100.0789
	Std. Deviation			29.319	19.08953	18.47188	15.62116
	Percentiles	25	*90*	67.00	75.0000	70.7500	86.7500
		50	*100*	79.00	91.0000	84.5000	103.0000
		75	*110*	89.00	105.0000	99.0000	113.0000
Others, Mainly English is First Lang.	N	Valid		647	558	526	428
		Missing		1760	1849	1881	1979
	Mean			103.62	108.2742	101.2624	106.1822
	Std. Deviation			16.773	10.89900	16.28203	12.63205
	Percentiles	25	*90*	97.00	104.0000	90.0000	98.0000
		50	*100*	106.00	110.0000	104.0000	110.0000
		75	*110*	112.00	115.0000	115.0000	116.0000

Table 12c. English Language Learners – Woodcock Johnson Subtests (Academics)

English Language Learners			Letter Word ID Totals	Applied Problems Totals	Quantitative Concepts Totals	Science Totals	Social Studies Totals
ELL	N	Valid	68	54	54	77	76
		Missing	191	205	205	182	183
	Mean		9.7353	14.8519	6.6111	9.7403	8.4737
	Median		10.0000	15.5000	7.0000	10.0000	9.0000
	Std. Deviation		4.85189	4.58219	2.34252	1.75771	2.52176
	Percentiles	5	2.4500	7.0000	2.0000	6.0000	4.0000
		10	4.0000	9.0000	3.0000	7.0000	5.0000
		25	6.0000	10.7500	5.0000	9.0000	7.0000
		50	10.0000	15.5000	7.0000	10.0000	9.0000
		75	13.0000	18.0000	8.0000	11.0000	10.0000
		90	15.1000	21.5000	9.5000	12.0000	12.0000
		95	17.5500	22.0000	10.2500	12.1000	13.0000
Non-ELL	N	Valid	642	647	646	663	661
		Missing	1763	1758	1759	1742	1744
	Mean		12.1558	17.4405	8.5511	12.4404	11.4690
	Median		12.0000	18.0000	9.0000	13.0000	11.0000
	Std. Deviation		6.34677	3.78433	2.29790	1.73353	2.12938
	Percentiles	5	3.1500	11.0000	5.0000	10.0000	8.0000
		10	5.0000	12.0000	6.0000	10.0000	9.0000
		25	9.0000	15.0000	7.0000	11.0000	10.0000
		50	12.0000	18.0000	9.0000	13.0000	11.0000
		75	15.0000	20.0000	10.0000	14.0000	13.0000
		90	17.7000	22.0000	11.0000	14.0000	14.0000
		95	21.0000	23.0000	12.0000	15.0000	15.0000

Table 13a – Preschool Attendance in 2006-2007, by Parent Report – Social Skills

Statistics

Child attended preschool During 2006-07 (T-Scores, mean of 50, SD = 10)			*Expected Score*	**DECA Social Skills Initiative**	**DECA Social Skills Self-Control**	**DECA Social Skills Attachment**	**DECA Social Skills Total Protective Factors**	**DECA Social Skills Behav-ioral Concerns**
. No	N	Valid		184	171	183	169	176
		Missing		618	631	619	633	626
	Mean			49.4130	55.3041	46.6831	49.8047	49.8125
	Std. Deviation			9.41589	9.38465	9.03705	9.35496	10.20443
	Range			44.00	41.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	43.5000	48.0000	41.0000	44.0000	42.0000
		50	*50.00*	51.0000	57.0000	46.0000	51.0000	49.0000
		75	*56.70*	56.0000	61.0000	52.0000	56.0000	57.7500
		95	*66.45*	65.7500	70.8000	64.0000	63.5000	68.0000
Yes	N	Valid		460	426	460	428	437
		Missing		1405	1439	1405	1437	1428
	Mean			51.8413	57.3333	49.0261	52.0280	46.3661
	Std. Deviation			9.76761	9.30840	9.76251	9.96876	9.51356
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	46.0000	52.0000	42.0000	46.0000	39.0000
		50	*50.00*	52.0000	57.0000	48.0000	52.0000	44.0000
		75	*56.70*	58.0000	64.0000	56.0000	58.0000	52.0000
		95	*66.45*	70.0000	72.0000	68.0000	70.0000	65.0000

Table 13b – Preschool Attendance in 2006-2007, by Parent Report – Academics (PPVT and TOPEL)

Child attended preschool 06-07 Standard Scores, Mean of 100, SD=15			*Expected Score*	**PPVT Receptive Vocab. Standard score**	**TOPEL Definitional Vocabulary Standard score**	**TOPEL Phonological Awareness standard score'**	**TOPEL Print Knowledge standard score**
Did Not Attend	N	Valid		205	174	175	137
		Missing		595	626	625	663
	Mean			95.19	104.0862	95.4457	100.0073
	Std. Deviation			24.895	14.84442	17.38331	13.98502
	Percentiles	25	*90*	88.00	100.0000	83.0000	88.0000
		50	*100*	99.00	108.0000	96.0000	102.0000
		75	*110*	108.00	114.0000	110.0000	113.0000
Attended Preschool	N	Valid		495	435	405	329
		Missing		1371	1431	1461	1537
	Mean			103.95	107.7402	101.6321	108.0486
	Std. Deviation			16.314	11.87450	16.69960	11.79231
	Percentiles	25	*90*	98.00	103.0000	90.0000	102.0000
		50	*100*	106.00	110.0000	104.0000	111.0000
		75	*110*	113.00	116.0000	116.0000	117.0000

Table 13c – Preschool Attendance in 2006-2007, by Parent Report – Woodcock Johnson Subtests (Academics)

Child attended preschool 2006-07			Letter Word ID Totals	Applied Problems Totals	Quantita-tive Concepts Totals	Science Totals	Social Studies Totals
.No Preschool	N	Valid	209	203	203	220	219
		Missing	593	599	599	582	583
	Mean		10.4498	16.1921	7.6207	11.5818	10.5845
	Median		10.0000	17.0000	8.0000	11.5000	11.0000
	Std. Deviation		6.28020	3.96738	2.26006	1.83513	2.36874
	Percentiles	5	2.0000	9.2000	3.0000	8.0500	6.0000
		10	4.0000	10.4000	4.0000	9.0000	7.0000
		25	6.0000	13.0000	6.0000	11.0000	9.0000
		50	10.0000	17.0000	8.0000	11.5000	11.0000
		75	14.0000	19.0000	9.0000	13.0000	12.0000
		90	16.0000	21.0000	11.0000	14.0000	13.0000
		95	18.5000	22.0000	11.0000	15.0000	14.0000
Yes Preschool	N	Valid	501	498	497	520	518
		Missing	1364	1367	1368	1345	1347
	Mean		12.5389	17.6687	8.7203	12.4038	11.4035
	Median		12.0000	18.0000	9.0000	13.0000	11.0000
	Std. Deviation		6.14988	3.80731	2.32367	1.90587	2.30829
	Percentiles	5	4.0000	10.9500	5.0000	9.0000	7.0000
		10	6.0000	12.9000	6.0000	10.0000	9.0000
		25	9.0000	15.0000	7.0000	11.0000	10.0000
		50	12.0000	18.0000	9.0000	13.0000	11.0000
		75	15.0000	20.0000	10.0000	14.0000	13.0000
		90	18.0000	22.0000	12.0000	14.0000	14.0000
		95	21.9000	23.0500	13.0000	15.0000	15.0500

14a Experience outside the home, including Preschool, Head Start, Child Care – Social Skills Scores

Experience Outside the Home (T-Scores, mean of 50, SD = 10)			*Expected Score*	**DECA Social Skills Initiative**	**DECA Social Skills Self-Control**	**DECA Social Skills Attach-ment**	**DECA Social Skills Total Protective Factors**	**DECA Social Skills Behav-ioral Concerns**
.No Outside Experience	N	Valid		86	79	86	81	79
		Missing		310	317	310	315	317
	Mean			49.1628	55.4304	47.0233	49.7160	50.5570
	Std. Deviation			9.62944	9.58322	9.70867	9.90232	8.98681
	Range			44.00	39.00	44.00	44.00	38.00
	Percentiles	25	*43.26*	44.2500	48.0000	40.7500	43.5000	44.0000
		50	*50.00*	50.0000	57.0000	47.0000	51.0000	50.0000
		75	*56.70*	56.0000	61.0000	52.5000	56.5000	57.0000
		95	*66.45*	66.0000	72.0000	64.0000	69.3000	65.0000
Outside Experience	N	Valid		558	518	557	516	534
		Missing		1713	1753	1714	1755	1737
	Mean			51.4534	56.9537	48.5655	51.6628	46.8820
	Std. Deviation			9.71019	9.32716	9.59043	9.81631	9.87212
	Range			44.00	44.00	44.00	44.00	41.00
	Percentiles	25	*43.26*	46.0000	52.0000	42.0000	45.2500	39.0000
		50	*50.00*	52.0000	57.0000	48.0000	52.0000	44.0000
		75	*56.70*	58.0000	64.0000	54.0000	58.0000	54.0000
		95	*66.45*	68.0000	72.0000	64.4000	69.1500	65.2500

14B. Experience outside the home, including Preschool, Head Start, Child Care – Language and Literacy Scores

Experience Outside Home Standard Scores, Mean of 100, SD=15			*Expected Scores*	**PPVT Standard**	**Definitional Vocabulary Standard score**	**Phonological Awareness standard score'**	**Print Knowledge standard score**
No Experience	N	Valid		104	88	83	69
		Missing		292	308	313	327
	Mean			93.61	103.3977	95.3494	98.3913
	Std. Deviation			31.826	14.61737	18.61316	14.61588
	Range			222	69.00	71.00	50.00
	Percentiles	25	*90*	88.00	97.0000	82.0000	86.5000
		50	*100*	100.00	107.5000	96.0000	100.0000
		75	*110*	109.75	112.7500	110.0000	110.5000
		95	*125*	119.00	118.0000	122.8000	118.5000
Experience	N	Valid		595	521	497	397
		Missing		1676	1750	1774	1874
	Mean			102.72	107.2534	100.5030	106.9521
	Std. Deviation			16.268	12.50143	16.77798	12.27115
	Range			252	72.00	74.00	69.00
	Percentiles	25	*90*	96.00	103.0000	89.0000	99.5000
		50	*100*	105.00	110.0000	102.0000	110.0000
		75	*110*	112.00	115.0000	115.0000	117.0000
		95	*125*	123.00	122.0000	124.0000	120.0000