# Readiness for Kindergarten II 2010 Kindergarten Readiness Study 

A Follow-up Study Conducted by the Mayor's Commission for Children Springfield, Missouri<br>March, 2011

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## INTRODUCTION

In 2006, nine area school districts participated in the Readiness for Kindergarten study conducted by the Mayor's Commission for Children. The original report may be viewed at the following website: www.redwagonkids.net .

In 2010, a follow-up study was conducted with four school districts. A random sample of five kindergarten students was drawn from each of the 122 classrooms of four area school districts: Fair Grove, Republic, Springfield, and Strafford. A total of 610 surveys were hand delivered to the districts between September 30 and October 4, 2010.

A copy of the survey may be found in Appendix A.
Surveys were returned on or before October 22, 2010. A total of 533 surveys were completed for a response rate of $87.4 \%$. However, 27 of the children for whom surveys were completed were already age six at the time the survey was administered. After those surveys were removed, the final data set contained 506 records for analysis. (Because of missing data, not all analyses reflect all 506 records.)

The survey contained 37 Devereux Early Childhood Assessment (DECA) questions to assess the children's social and emotional development. In addition, a variety of demographic and experiential data was gathered and reported, along with DIAL-3 scores (which reflect motor, language and concept development). The goal was to determine which data best predicted school readiness.

Many schools in Missouri already use the DIAL-3 instrument, and DIAL-3 composite scores were obtained from student records. The DECA instrument was used to assess overall social and emotional development ("Total Protective Factors" scores) and risk factors ("Behavioral Concerns" scores). All surveys were completed by kindergarten teachers.

The purpose of this report is to present the findings of the current survey and compare and contrast the findings to those of the original survey administered in 2006.

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## FINDINGS

## FINDINGS FROM THE CURRENT SURVEY, OCTOBER, 2010

Kindergarten readiness and its relationships with free/reduced lunch status, attendance at a public preschool program and gender:

Overall, how do teachers evaluate the kindergarten readiness of their children?

|  | Not prepared | Prepared | Well prepared | Not Sure |
| :--- | :--- | :--- | :--- | :--- |
| $\mathrm{N}=500$ | $101(20.2 \%)$ | $226(45.2 \%)$ | $162(32.4 \%)$ | $11(2.2 \%)$ |



Teacher's Evaluations of Students' Readiness to Enter Kindergarten

Is there a statistically significant relationship between student SES and Kindergarten Readiness? Yes. ("Not Sure" responses were removed from the data set for the following analysis.)

Ready for School by Free/Reduced Lunch

|  | Not prepared | Prepared | Well prepared |
| :--- | :--- | :--- | :--- |
| FR Lunch, $\mathrm{N}=244(49.4 \%)$ | $27.7 \%$ | $51.1 \%$ | $21.3 \%$ |
| Reg Lunch, $\mathrm{N}=250(50.6 \%)$ | $13.3 \%$ | $41.9 \%$ | $44.8 \%$ |


$\square$ Not prepared $\square$ Prepared $\square$ Well prepared

A significantly higher proportion of students eligible for Free/Reduced lunch were described by their teachers as not prepared for kindergarten.

A significantly higher proportion of students paying regular lunch prices were well prepared for kindergarten.

Is there a statistically significant relationship between attendance at a public preschool program and Kindergarten readiness? Yes. ("Not Sure" responses were removed from the data set for the following analysis.)

Ready for School by Attended Public Preschool

|  | Not prepared | Prepared | Well prepared |
| :--- | :--- | :--- | :--- |
| Did Not Attend, N = 271 <br> $(57.8 \%)$ | $25.5 \%$ | $42.6 \%$ | $31.9 \%$ |
| Attended, N = 198 (42.2\%) | $14.9 \%$ | $50.3 \%$ | $34.9 \%$ |



A significantly lower proportion of students who attended a public preschool program were not prepared for kindergarten. (Note: Those who did not attend a public preschool program may have attended other preschool programs. Also, many of the students reported by their teachers to have attended a public preschool program were not eligible for Free/Reduced lunch, thereby limiting interpretation of these results.)

Ready for School by Attended Public Preschool Program for Children Eligible for Free/Reduced Lunch

|  | Not prepared | Prepared | Well prepared |
| :--- | :--- | :--- | :--- |
| Did Not Attend, N = 130 (56.3\%) | $36.3 \%$ | $43.5 \%$ | $20.2 \%$ |
| Attended, $\mathrm{N}=101(43.7 \%)$ | $18.4 \%$ | $61.2 \%$ | $20.4 \%$ |

A significantly lower proportion of children who attended a public preschool program were described as not prepared for kindergarten by their teachers.


Readiness for School by Attended Public Preschool Program for Children Eligible for Free/Reduced Lunch

Is there a statistically significant relationship between gender and Kindergarten readiness? Yes. ("Not Sure" responses were removed from the data set for the following analysis.)

Ready for School by Gender

|  | Not prepared | Prepared | Well prepared |
| :--- | :--- | :--- | :--- |
| Male, $\mathrm{N}=237(47.6 \%)$ | $28.0 \%$ | $46.6 \%$ | $25.4 \%$ |
| Female, $\mathrm{N}=261(52.4 \%)$ | $13.7 \%$ | $46.3 \%$ | $40.0 \%$ |

Teachers rated a significantly larger proportion of males than females as not prepared for kindergarten.


Readiness for School by Gender

## COMPARISONS OF THE 2010 SURVEY WITH THE 2006 SURVEY

Aggregate sample $\mathbf{N}=1286$. All participating school systems.
N (2006) $=780$ (60.7\%)
N (2010) = 506 (39.3\%)
(These comparisons have the advantage of the largest N for analyses)
Is there a statistically significant change from 2006 to 2010 in teacher's ratings of students' readiness to enter Kindergarten? No.

From 2010:
Not prepared: 20.2\%
Prepared: 45.2\%
Well prepared: 32.4\%
Not sure / too early to tell: $2.2 \%$

Is there a statistically significant change from 2006 to 2010 in students' DIAL-3 percentiles? No. In both cases, students' DIAL-3 percentiles are in the low 70s.

Is there a statistically significant change from 2006 to 2010 in children's scores on the Behavioral Concerns scale (the risk factors scale) of the DECA? No.

Is there a statistically significant change from 2006 to 2010 in children's scores on the Total Protective Factors scale (the protective factors scale) of the DECA? Yes.

A statistically significant increase in the teachers' ratings of students on the Total Protective Factors, but

- Very small "effect size"

$$
\begin{aligned}
& \text { o } \begin{array}{l}
\mathrm{M}(2006)=2.71 \text { (scale }=0-4: " \text { Never" }=0 \text {, "Rarely" }=1 \text {, } \\
\text { "Occasionally" }=2 \text {, "Frequently" }=3 \text {, "Very Frequently" }=4) \\
\text { • } \mathrm{M}(2010)=2.82 \text {, a gain of } 0.11 \text { on a scale of } 0-4(\sim 1 / 36 \text { of the } \\
\text { possible range of the scale) } \\
\bullet \quad(* \text { Mean scores are reported differently from those in the } \\
\\
\text { 2007 report of the 2006 data. Scores now reflect a scale } \\
\text { conversion from summed scores to those of the original } \\
\text { instrument, i.e., from "Never" }=0 \text { through "Very } \\
\text { Frequently" }=4 \text { vs. from } 0 \text { through } 108 .)
\end{array} \\
& 0 \approx 56 \% \text { of } 2010 \text { students are above the } 2006 \text { mean score of } 2.71
\end{aligned}
$$

## Other Aggregate Sample Findings Relating the 2010 Data to the 2006 Data:

- Again, the 2010 DECA scores are related to readiness to enter Kindergarten to about the same degree as they were in 2006.
- Again, the 2010 DECA scores are related to free/reduced lunch vs. regular lunch and to parents' educational status.
- Again, the 2010 DECA protective factor scores along with the DIAL-3 scores predict Kindergarten readiness to about the same degree as was found in the 2006 multiple regression analysis.


## Appendix A

School Readiness Survey 2010

## Part A

1. Teacher's last name:
2. MOSIS number: $\qquad$
3. Student Date of Birth (mm/dd/yy): $\qquad$
4. Today's Date (mm/dd/yy): $\qquad$
5. Dial 3 percentile: $\qquad$
6. Student's gender:
7. Male
8. Female
9. Student lives with: (MARK ALL THAT APPLY)
10. Both parents
11. Father
12. Stepfather
13. Mother
14. Stepmother
15. Guardian
16. Highest level of education in household: years completed $\qquad$
17. Lunch status:
18. Free/Reduced
19. Regular Price
20. School district:
21. Fair Grove
22. Republic
23. Springfield
24. Strafford
25. Did this child attend a public school preschool program? (ECSE, MPP, Title I, Wonder Years, etc.)
26. Yes
27. No
28. How ready was this child to enter Kindergarten?
29. Not Prepared
30. Prepared
31. Well Prepared
32. Not Sure
33. How many kindergarten students are in your classroom? $\qquad$
34. How many of your students this year were not ready to enter kindergarten and meet its challenges successfully? $\qquad$
35. How many years have you been teaching? $\qquad$
36. How many years teaching kindergarten? $\qquad$

Part B: The following questions describe a number of behaviors seen in some young children. Read the statements that follow the phrase: During the past 4 weeks, how often did the child... and fill in the circle underneath the word that tells how often you saw the behavior. Please answer each question carefully. There are no right or wrong answers. If you wish to change your answer, put an X through it and fill in your new choice. Please do not skip any items. Use a pencil or ballpoint pen. Do not use a magic marker or Sharpie.

| Item\# | During the past 4 weeks, how often did the child... | Never | Rarely | Occasionally | Frequently | $\begin{gathered} \text { Very } \\ \text { Frequently } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Act in a way that made adults smile or show interest in her/him? | O | O | O | O | O |
| 2. | Do things for himself/herself? | O | O | O | O | O |
| 3. | Choose to do a task that was challenging for her/him? | O | O | O | O | O |
| 4. | Listen to or respect others? | O | O | O | O | O |
| 5. | Control her/his anger? | O | O | O | O | O |
| 6. | Respond positively to adult comforting when upset? | O | O | O | O | O |
| 7. | Participate actively in make-believe play with others (dress-up, etc.)? | O | O | O | O | O |
| 8. | Fail to show joy or gladness at a happy occasion? | O | O | O | O | O |
| 9. | Touch children/adults inappropriately? | O | O | O | O | O |
| 10. | Show affection for familiar adults? | O | O | O | O | O |
| 11. | Have temper tantrums? | O | O | O | O | O |
| 12. | Keep trying when unsuccessful (act persistent)? | O | O | O | O | O |
| 13. | Handle frustration well? | O | O | O | O | O |
| 14. | Have no reaction to children/adults? | O | O | O | O | O |
| 15. | Use obscene gestures or offensive language? | O | O | O | O | O |
| 16. | Try different ways to solve a problem? | O | O | O | O | O |
| 17. | Act happy or excited when parent/guardian returned? | O | O | O | O | O |


| Item\# | During the past 4 weeks, how often did the child... | Never | Rarely | Occasionally | Frequently | $\begin{gathered} \text { Very } \\ \text { Frequently } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18. | Destroy or damage property? | O | O | O | O | O |
| 19. | Try or ask to try new things or activities? | O | O | O | O | O |
| 20. | Start or organize play with other children? | O | O | O | O | O |
| 21. | Show patience? | O | O | O | O | O |
| 22. | Ask adults to play with or read to him/her? | O | O | O | O | O |
| 23. | Have a short attention spay (difficulty concentrating)? | O | O | O | O | O |
| 24. | Focus his/her attention or concentrate on a task or activity? | O | O | O | O | O |
| 25. | Share with other children? | O | O | O | O | O |
| 26. | Fight with other children? | O | O | O | O | O |
| 27. | Become upset or cry easily? | O | O | O | O | O |
| 28. | Say positive things about the future (act optimistic)? | O | O | O | O | O |
|  | Trust familiar adults and believe what they say? | O | O | O | O | O |
| 30. | Accept another choice when her/his first choice was unavailable? | O | O | O | O | O |
| 31. | Seek help from children/adults when necessary? | O | O | O | O | O |
| 32. | Ask other children to play with him/her? | O | O | O | O | O |
| 33. | Cooperate with others? | O | O | O | O | O |
| 34. | Calm herself/himself down when upset? | O | O | O | O | O |
| 35. | Get easily distracted? | O | O | O | O | O |
| 36. | Make decisions for himself/herself? | O | O | O | O | O |
|  | Show an interest in what children/adults are doing? | O | O | O | O | O |
| Offic | e use only: |  |  |  |  |  |

