

Readiness for Kindergarten III

A Continuation Study Conducted for the
Mayor's Commission for Children
Springfield, Missouri
March, 2015

Prepared by:
David J. Dixon
Melissa Duncan Fallone
Janet D. Martin

Missouri State University
Center for Research & Service

INTRODUCTION

In 2006, nine area school districts participated in the *Readiness for Kindergarten* study conducted by the Mayor's Commission for Children. In 2010, the first follow-up study was conducted with four of the original school districts from the initial study.

In 2014, a second follow-up study was conducted with three of the original area school districts: Springfield, Strafford and Fair Grove. A random sample of five kindergarten students was drawn from each of the 105 classrooms in these districts. A total of 525 surveys were requested from teachers between September 23rd and October 31st, 2014.

The methodology employed for this third iteration of the study differed from that employed in the first two: Surveys were electronically administered rather than administered in paper-and-pencil form as in the 2006 and 2010 iterations. Also, newer versions of survey materials were employed in 2014.

The 2014 surveys were returned on or before October 31st, 2014. A total of 340 surveys were completed for a response rate of 67%. However, 22 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 318 records for analysis. (Because of missing data, not all analyses reflect all 318 records.)

The survey contained 38 Devereux Early Childhood Assessment (DECA) questions to assess the children's social and emotional development. This contrasts with the prior version's 37-item DECA scale (although many of the items were identical or very similar in the old and new DECAs allowing for meaningful comparisons). In addition, some demographic and experiential data were gathered and reported. Included in these other data were DIAL-4 percentiles which reflect motor, language and concept development and which allow for limited contrasts with the DIAL-3 percentiles supporting the earlier 2006 and 2010 reports. The primary goals of the 2014 study were to provide time-lag comparisons with the findings of the 2006 and 2010 research.

The 2014 study was funded by an anonymous private donation from a Springfield area business owner.

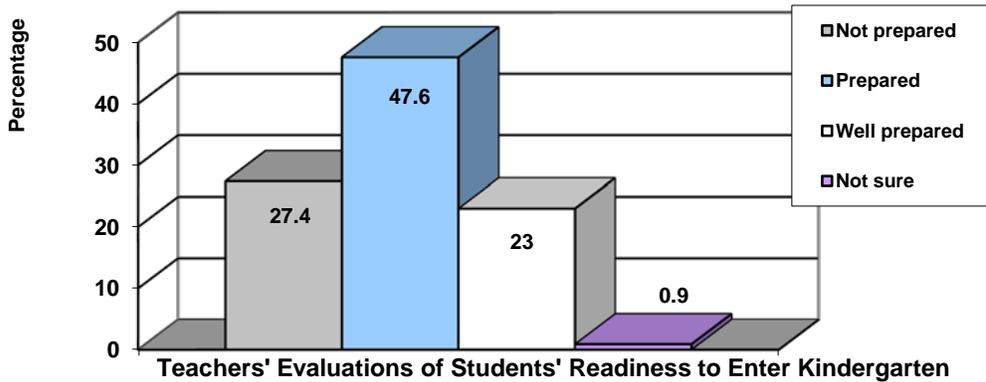
FINDINGS

FINDINGS FROM THE CURRENT SURVEY, OCTOBER, 2014

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?

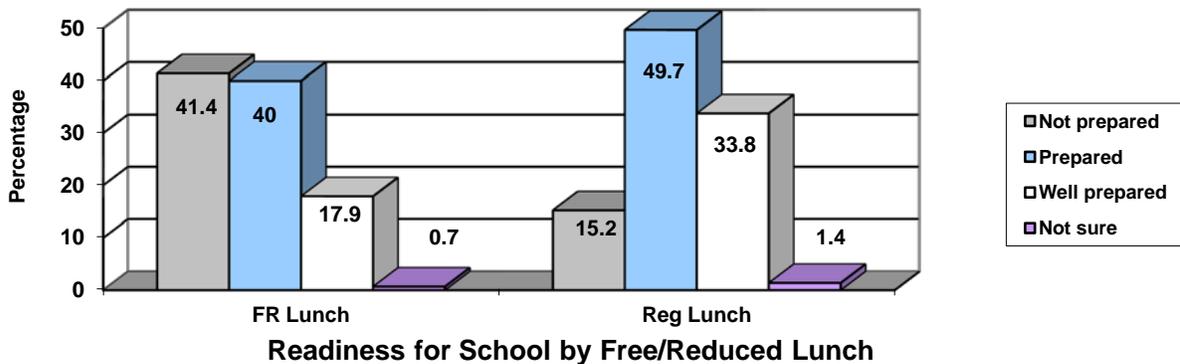
| | Not prepared | Prepared | Well prepared | Not Sure |
|-------|--------------|-------------|---------------|----------|
| N=317 | 87 (27.4%) | 151 (47.6%) | 76 (23.0%) | 3 (0.9%) |



Is there a statistically significant relationship between student SES and Kindergarten Readiness? Yes.

Ready for School by Free/Reduced Lunch

| | Not prepared | Prepared | Well prepared | Not sure |
|----------------------------|--------------|------------|---------------|----------|
| FR Lunch, N = 140 (49.1%) | 58 (41.4%) | 56 (40.0%) | 25 (17.9%) | 1 (0.7%) |
| Reg Lunch, N = 145 (50.9%) | 22 (15.2%) | 72 (49.7%) | 49 (33.8%) | 2 (1.4%) |



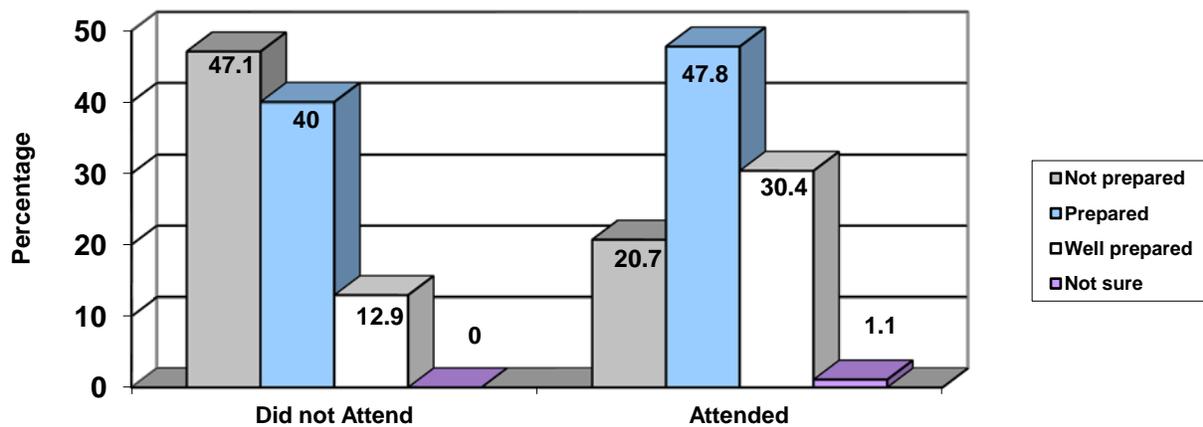
A much higher proportion of students eligible for Free/Reduced lunch were described by their teachers as *not prepared* for kindergarten.

A much higher proportion of students paying regular lunch prices were described as *prepared* or *well prepared* for kindergarten.

Is there a statistically significant relationship between attendance at a formal preschool program and Kindergarten readiness? Yes.

Ready for School by Attended Formal Preschool

| | Not prepared | Prepared | Well prepared | Not sure |
|--------------------------------|--------------|------------|---------------|----------|
| Did Not Attend, N = 85 (31.6%) | 40 (47.1%) | 34 (40.0%) | 11 (12.9%) | 0 (0%) |
| Attended, N = 184 (68.4%) | 38 (20.7%) | 88 (47.8%) | 56 (30.4%) | 2 (1.1%) |



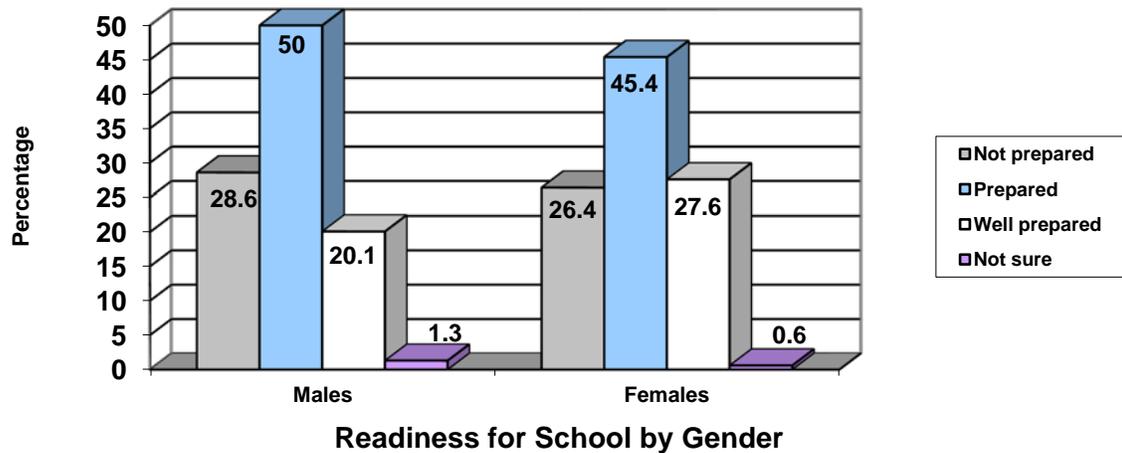
Readiness for School by Attended Formal Preschool Program

A much higher proportion of students who did not attend a formal preschool program were identified as *not prepared* for kindergarten. (Note: Many of the students reported by their teachers to have attended a formal preschool program were not eligible for Free/Reduced lunch, thereby limiting interpretation of these results.)

Is there a statistically significant relationship between gender and Kindergarten readiness?
No.

Ready for School by Gender

| | Not prepared | Prepared | Well prepared | Not sure |
|-----------------|--------------|------------|---------------|----------|
| Male, N = 154 | 44 (28.6%) | 77 (50%) | 31 (20.1%) | 2 (1.3%) |
| Female, N = 163 | 43 (26.4%) | 74 (45.4%) | 45 (27.6%) | 1 (0.6%) |



COMPARISONS OF THE 2014 SURVEY WITH THE 2006 and 2010 SURVEYS

Aggregate sample N = 1620. All participating school systems.

N (2006) = 796 (49.1%)

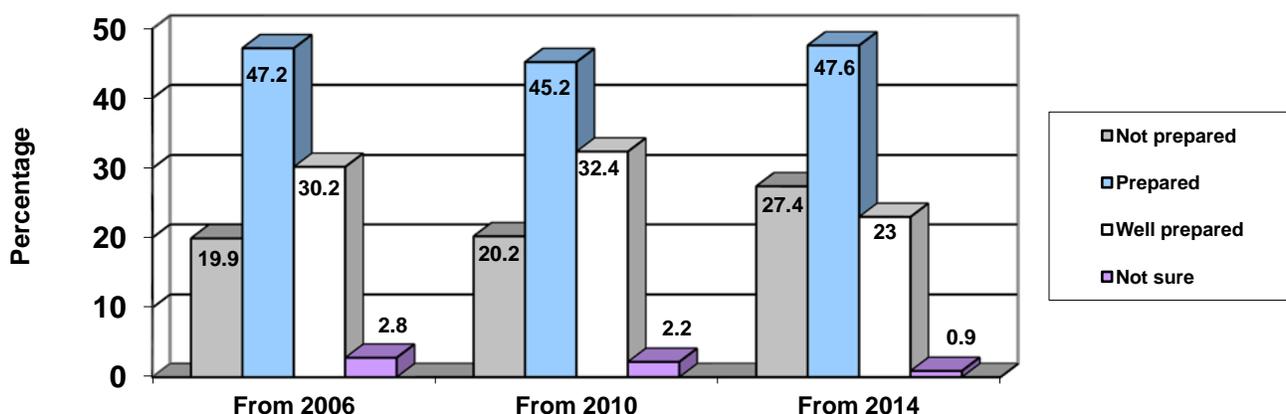
N (2010) = 506 (31.2%)

N (2014) = 318 (19.6%)

(These comparisons have the advantage of the largest N for analyses)

Is there a statistically significant change from 2006 to 2014 in teacher’s ratings of students’ readiness to enter Kindergarten? Yes. The percentage of students identified as not prepared for kindergarten was higher in 2014 than in 2006 and 2010.

| | From 2006 | From 2010 | From 2014 |
|------------------------------|-------------|-------------|-------------|
| Not prepared | 144 (19.9%) | 101 (20.2%) | 87 (27.4%) |
| Prepared | 342 (47.2%) | 226 (45.2%) | 151 (47.6%) |
| Well prepared | 219 (30.2%) | 162 (32.4%) | 76 (23.0%) |
| Not sure / too early to tell | 20 (2.8%) | 11 (2.2%) | 3 (0.9%) |



Changes in Teachers' Ratings of School Readiness

Is there a statistically significant change over the three iterations of the study (2006, 2010, 2014) in students' DIAL-3 or DIAL-4 percentiles? Yes. In 2006 and 2010, DIAL-3 percentiles averaged in the low 70s. In 2014, DIAL-4 percentiles averaged in the low 60s. Significant contrasts were found between 2006 and 2014 and between 2010 and 2014, but not between 2006 and 2010.

Is there a statistically significant change from 2006 to 2014 in children's scores on the common items of the Behavioral Concerns scale (the risk factors scale) of the DECA? No.

Is there a statistically significant change from 2006 to 2014 in children's scores on the common items of the Total Protective Factors scale (the protective factors scale) of the DECA? Yes. Scores in 2010 were slightly but statistically significantly higher than those in 2006. Slight differences between 2006 and 2014 and those between 2010 and 2014 did not rise to statistical significance. Overall, the differences are so tiny as to suggest that while statistical significance was obtained, "practical significance" (i.e., the efficacy of this finding for policy changes) is absent.

OTHER AGGREGATE SAMPLE FINDINGS COMPARING THE 2014 DATA TO THOSE COLLECTED IN 2006 AND 2010:

- Again, the 2014 DECA Protective Factor scores are related to readiness to enter Kindergarten to similar degrees as they were in 2006 and 2010.
- Again, the 2014 DECA scores are related to free/reduced lunch vs. regular lunch status. However, unlike before DECA scores are not statistically significantly related to parents' educational status.
- Again, the 2014 DIAL-4 percentiles and the DECA protective factor scores predict Kindergarten readiness to almost the same degree as was found in the prior multiple regression analyses (with $R=.66$). Together, the DECA and the DIAL are strong predictors of teachers' evaluations of kindergarten readiness.