School Readiness

2016 CENTRAL TEXAS EDUCATION PROFILE

Made possible through the investment of:

Michael & Susan Dell FOUNDATION
Limited Childcare Available for Children Under 5

Capacity of Childcare Centers in Austin MSA as % of Population Under 5

<table>
<thead>
<tr>
<th>Total # Children</th>
<th>Bastrop</th>
<th>Caldwell</th>
<th>Hays</th>
<th>Travis</th>
<th>Williamson</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,849</td>
<td>40% (1,947)</td>
<td>32% (780)</td>
<td>40% (4,326)</td>
<td>48% (37,465)</td>
<td>69% (23,125)</td>
</tr>
</tbody>
</table>

% of Child Population under 5 Years


© 2016 E³ Alliance
Growth in District Pre-K Enrollment Declined Beginning in 2012

Annual Enrollment Growth by Year, 2005 through 2014

Source: E³ Alliance analysis of Texas Education Agency AEIS data

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1 in 3 Non-low Income Children Attend Private Pre-K

Experience in Year Prior to Kindergarten in 2015-16

Low Income
- At Home/With Relative: 68%
- Public Pre-K: 23%
- Private Pre-K: 9%

Non-Low Income
- At Home/With Relative: 18%
- Public Pre-K: 48%
- Private Pre-K: 33%

E3 Alliance Analysis of Ready,Set,Go! weighted data, Central Texas; Prior Experience known for 95% of sample
More Low Income Children At Home in 2015-16

Low Income Student Experience in Year Prior to Kindergarten

2011-12 to 2014-15

- Home or w/ Relative: 75%
- Public Pre-K: 13%
- Private Pre-K: 9%
- Head Start: 3%

2015-16

- Home or w/ Relative: 68%
- Public Pre-K: 23%
- Private Pre-K: 9%

E3 Alliance Analysis of Ready,Set,K! weighted data, Central Texas; Prior Experience known for 95% of sample © 2016 E3 Alliance
7 in 10 Eligible Children Attend District Pre-K

Experience in Year Prior to Kindergarten in 2015-16 for Children Eligible for Pre-K

- **Public Pre-K**: 72%
- **Private Pre-K**: 8%
- **Home or w/ Relative**: 20%

E3 Alliance Analysis of *Ready, Set, K!* weighted data, Central Texas; Prior Experience known for 98% of sample
Eligible White Students Enrolled in Public Pre-K in Lowest Proportion

Pre-K Enrollment, Central Texas, 2010-11 to 2015-16

- Black (N=230): 71%
- Hispanic (N=1,623): 78%
- White (N=326): 54%

Percent of Pre-K Eligible Children

- Public Pre-K
- Private Pre-K
- Head Start
- Home or with Relative

E3 Alliance Analysis of Ready,Set,K! weighted data; Prior Experience known for 95% of sample
In School Districts with Full Day Pre-K
Parents More Likely to Enroll Child in Pre-K

Percent of Eligible Children Enrolled in Public Pre-K

<table>
<thead>
<tr>
<th>Amount of Pre-K Instruction</th>
<th>Percent Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half day</td>
<td>73%</td>
</tr>
<tr>
<td>Full day</td>
<td>85%</td>
</tr>
</tbody>
</table>

Eligible = Low Income and/or English Language Learner
Source: E3 analysis of data from the UT Austin Education Research Center, Central Texas, 2012-13 © 2016 E³ Alliance
Students in Full Day Public Pre-K Miss 5 Fewer Days of School on Average

Number of Days Eligible Children Attended Public Pre-K

<table>
<thead>
<tr>
<th>Amount of Pre-K Instruction</th>
<th>Number of Days in Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half day</td>
<td>154</td>
</tr>
<tr>
<td>Full day</td>
<td>159</td>
</tr>
</tbody>
</table>

Eligible = Low Income and/or English Language Learner

Source: E3 analysis of data from the UT Austin Education Research Center, Central Texas, 2012-13 © 2016 E3 Alliance
Return on Investment Over Time From Enrolling each Cohort of Children Who Are Eligible But Not Enrolled

Source: Taylor et al. (2006)  
Bush School of Government and Public Service  
Texas A&M University  
Based on 2011-2012 E3 Analysis of ERC and K-Readiness Data
Few Students in Full Day Pre-K with Low Student-Teacher Ratio

Pre-K Enrollment by Amount of Instruction and Student-Teacher Ratio

Low Ratio is <= 15 students per teacher; High Ratio is > 15 students per teacher

Source: E3 Alliance analysis of TAPR data and ESC Region 13 Pre-K Survey, CTX 2012-13
Ready Set K! is a Valid and Reliable Assessment of School Readiness

• Representative of the 2008 Texas Pre-K Guidelines
• Developmentally appropriate and measurable
• Aligned to Texas Essential Knowledge and Skills
• Multidimensional
• Validated: Predicts 3rd grade achievement
• Developed by early childhood education providers and researchers from the University of Texas at Austin and Texas State University
Kindergarten Readiness Partners
Pre-K Factors Related to Readiness

- Amount of Instruction
  - State pays for half day instruction in Pre-K
  - Some districts choose to have full day Pre-K
- Student-Teacher Ratio – based on two factors
  - Class size
  - Number of teachers per class
Assessing Kindergarten Readiness

- Six years data collection (2010-11 to 2015-16)
- 12 Central Texas School Districts, 54 schools
- 4,517 Kindergarten students
  - 2% Asian
  - 12% Black
  - 58% Hispanic
  - 26% White
- 67% Low Income
- 34% English Language Learners
- Data weighted to represent region
Just Over Half of Central Texas Students Ready to Succeed in School

Kindergarten Readiness, Central Texas, 2015-16

- Ready: 41%
- Not Ready: 59%

Source: E3 Alliance Analysis of *Ready, Set, K!* weighted data
Kindergarten Readiness Rate Dropped in 2015-16

Kindergarten Readiness, Central Texas


52% 50% 54% 53% 53% 41%

Percentage of Kindergartners

2020 School Readiness Objective for All Children = 70%

Source: E3 Alliance Analysis of Ready, Set, K! weighted data
Rates Similar Across Readiness Components

Central Texas Children Entering Kindergarten School Ready, By Readiness Component, 2015-16

- Emerging Literacy and Numeracy: 55%
- Language & Communication: 60%
- Social Emotional: 56%

Source: E3 Alliance Analysis of Ready, Set, K! weighted data
Emerging Literacy and Numeracy Readiness Rate Dropped in 2015-16

Emerging Literacy and Numeracy Readiness for Kindergarten
Central Texas

2020 School Readiness Objective for All Children = 70%

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Kindergartners</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>62%</td>
</tr>
<tr>
<td>2011-12</td>
<td>62%</td>
</tr>
<tr>
<td>2012-13</td>
<td>68%</td>
</tr>
<tr>
<td>2013-14</td>
<td>62%</td>
</tr>
<tr>
<td>2014-15</td>
<td>65%</td>
</tr>
<tr>
<td>2015-16</td>
<td>55%</td>
</tr>
</tbody>
</table>

Source: E3 Alliance Analysis of Ready,Set,K! weighted data
Language & Communication Readiness Down 10 pts

Language & Communication Readiness for Kindergarten, Central Texas

2010-11: 64%
2011-12: 63%
2012-13: 71%
2013-14: 70%
2014-15: 71%
2015-16: 60%

2020 School Readiness Objective for All Children = 70%

Source: E3 Alliance Analysis of Ready, Set, K! weighted data
Social Emotional Readiness Rate Dropped in 2015-16

Social-Emotional Readiness for Kindergarten, Central Texas

2020 School Readiness Objective for All Children = 70%

Percentage of Kindergartners

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>62%</td>
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</tr>
<tr>
<td>2013-14</td>
<td>68%</td>
</tr>
<tr>
<td>2014-15</td>
<td>66%</td>
</tr>
<tr>
<td>2015-16</td>
<td>56%</td>
</tr>
</tbody>
</table>

Source: E3 Alliance Analysis of Ready, Set, K! weighted data
Most Averages Near ‘Ready’ Standards

Average Score by Competency, Central Texas, 2015-16

- Recognizes Numerals
- Identifies Small Amounts
- Sorts
- Shapes
- Counts up to 10 Items
- Uses Letters
- Child Retells Stories
- Letter Sounds
- Upper and Lower Case Letters
- Rhyming Words
- Combines Sentences
- Labels
- Uses Language
- Follows Directions
- Interacts & Plays
- Understands Feelings
- Sustains Attention
- Behavior Regulation

Source: E3 Alliance Analysis of Ready,Set,K! weighted data
Fewer Low Income Students Kindergarten Ready

Kindergarten Readiness, Central Texas, 2015-16

<table>
<thead>
<tr>
<th>Percentage of Kindergartners</th>
<th>Low Income</th>
<th>Non-Low Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Non-Low Income</td>
<td>51%</td>
<td></td>
</tr>
</tbody>
</table>

Source: E3 Alliance Analysis of Ready,Set,Know! weighted data
Large, Consistent Gap in Readiness Rate by Income

Kindergarten Readiness Rate by Income Status, Central Texas

<table>
<thead>
<tr>
<th>Year</th>
<th>Low Income (%)</th>
<th>Non-Low Income (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>39</td>
<td>66</td>
</tr>
<tr>
<td>2011-12</td>
<td>40</td>
<td>63</td>
</tr>
<tr>
<td>2012-13</td>
<td>45</td>
<td>68</td>
</tr>
<tr>
<td>2013-14</td>
<td>44</td>
<td>64</td>
</tr>
<tr>
<td>2014-15</td>
<td>42</td>
<td>65</td>
</tr>
<tr>
<td>2015-16</td>
<td>30</td>
<td>51</td>
</tr>
</tbody>
</table>

Source: E3 Alliance Analysis of Ready,Set,K! weighted data

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Largest Income Gap in Kindergarten Readiness is in Language & Communication

Kindergarten Readiness by Economic Status, Central Texas 2015-16

- Overall: 51% Non-Low Income, 30% Low Income
- Emerging Literacy and Numeracy: 64% Non-Low Income, 45% Low Income
- Language & Communication: 74% Non-Low Income, 45% Low Income
- Social & Emotional: 65% Non-Low Income, 47% Low Income

Source: E3 analysis of Ready, Set, K! data
Readiness Rate Consistent for Low Income Students

Kindergarten Readiness, Central Texas, 2015-16

2020 School Readiness Objective for All Children = 70%

Percentage of Kindergartners

<table>
<thead>
<tr>
<th></th>
<th>Low Income</th>
<th>Non-Low Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>33%</td>
<td>*</td>
</tr>
<tr>
<td>Hispanic</td>
<td>29%</td>
<td>39%</td>
</tr>
<tr>
<td>White</td>
<td>31%</td>
<td>54%</td>
</tr>
</tbody>
</table>

*Sample too small

Source: E3 Alliance Analysis of Ready,Set,K! weighted data
Social Emotional Readiness Differs by Ethnicity

Social-Emotional Readiness for Kindergarten, Central Texas

- Black
- Hispanic
- White

Percentage of Kindergartners

Source: E3 Alliance Analysis of Ready,Set,K! weighted data
Social Emotional Readiness Rate Drops Across Ethnicities

Social-Emotional Readiness for Kindergarten, Central Texas

Percentage of Kindergartners

- Black
- Hispanic
- White

2010-11 to 2014-15 Average

- Black: 54%
- Hispanic: 60%
- White: 70%

2015-16

- Black: 49%
- Hispanic: 50%
- White: 60%

Source: E3 Alliance Analysis of Ready, Set, K! weighted data

© 2015 E3 Alliance
White and Hispanic Students Show 10 Percentage Point Drop in Social Emotional Readiness

Social-Emotional Readiness for Kindergarten, Central Texas

<table>
<thead>
<tr>
<th>Percentage of Kindergartners</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010-11 to 2014-15 Average</td>
<td>2015-16</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>54%</td>
<td>49%</td>
<td>60%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>60%</td>
<td>50%</td>
<td>70%</td>
</tr>
<tr>
<td>White</td>
<td>60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: E3 Alliance Analysis of Ready,Set,K! weighted data
Children With Pre-K Have Consistently Higher Kindergarten Readiness Rate

Kindergarten Readiness by Prior Year Status, Central Texas

Year: 2010 2011 2012 2013 2014 2015

- At Home Prior to Kindergarten: 39% 38% 42% 46% 42% 28%
- Enrolled in Pre-K Program: 55% 55% 58% 58% 55% 45%

E3 Alliance Analysis of Ready,Set,K! weighted data
PK enrollment includes Public and Private Pre-K programs
For all Readiness Components
More Students Ready with Pre-K Experience

Kindergarten Readiness by Pre-K Experience, Central Texas 2015-16

Overall
- Enrolled in Pre-K Program: 45%
- At Home Prior to Kindergarten: 28%

Emerging Literacy and Numeracy
- Enrolled in Pre-K Program: 59%
- At Home Prior to Kindergarten: 39%

Language & Communication
- Enrolled in Pre-K Program: 62%
- At Home Prior to Kindergarten: 49%

Social & Emotional
- Enrolled in Pre-K Program: 58%
- At Home Prior to Kindergarten: 50%

Source: E3 Alliance analysis of Ready,Set,K! data
Enrollment includes Public and Private Pre-K programs

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Kindergarteners With Pre-K Experience
3 Times as Likely to Be Ready for School

Odds of Kindergarten Readiness Based on Pre-K Enrollment Status,
Central Texas, 2010-11 to 2015-16

Overall Readiness
Emerging Literacy & Numeracy
Language & Communication
Social-Emotional

Odds of Kindergarten Readiness

1X  2X  3X  4X

E3 Alliance analysis of Ready, Set, K! weighted data; odds ratios from logistic regression with Pre-K enrollment (Public & Private), income status and gender as predictors

© 2016 E3 Alliance
More Students with Pre-K Ready for School

Kindergarten Readiness, Central Texas, 2015-16

Percentage of Kindergartners Ready

- At Home Prior to Kindergarten
- Enrolled in Pre-K Program

Low Income
- 18%
- 33%

Non-low Income
- 40%
- 55%

E3 Alliance Analysis of Ready, Set, K! weighted data
PK enrollment includes Public and Private Pre-K programs

© 2016 E3 Alliance
Low Income Kindergartners with Pre-K Experience Almost 3 Times as Likely To Be Ready for School

Odds of Kindergarten Readiness Based on Pre-K Enrollment Status
Central Texas, 2010-11 to 2014-15

- All: 3.0
- Non-Low Income: 1.7
- Low Income: 2.9

E3 Alliance analysis of Ready, Set, K! weighted data; odds ratios (as relative risk) from logistic regression by income status with Pre-K enrollment (Public & Private) and gender as predictors.
Greatest Language Readiness with Full Day Pre-K and Low Student-Teacher Ratio

Readiness in Language and Communication for Eligible Children by Amount of Instruction and Student-Teacher Ratio

Greater readiness than other groups, p = .002
Eligible = Low income and/or English Language Learner; Low Ratio is <=15 students/teacher
Source: E3 Alliance analysis of Central Texas Ready, Set, K! data from 2010-11 to 2014-15

Public Pre-K Type

<table>
<thead>
<tr>
<th>Public Pre-K Type</th>
<th>Average Readiness Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half Day, High Ratio</td>
<td>61%</td>
</tr>
<tr>
<td>Half Day, Low Ratio</td>
<td>61%</td>
</tr>
<tr>
<td>Full Day, High Ratio</td>
<td>61%</td>
</tr>
<tr>
<td>Full Day, Low Ratio</td>
<td>69%</td>
</tr>
</tbody>
</table>

*
Fewer Girls Ready for Kindergarten in 2015

Kindergarten Readiness, Central Texas

<table>
<thead>
<tr>
<th>Percentage Kindergartners</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11 to 2014-15</td>
<td>44%</td>
<td>37%</td>
</tr>
<tr>
<td>2015-16</td>
<td>61%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Source: E3 Alliance Analysis of Ready, Set, K! weighted data
Readiness Rates for Low Income Children Dropped in 2015-16

Kindergarten Readiness for Low Income Children Who Attended District Pre-K, 2010-11 to 2015-16

2020 School Readiness Objective for All Children = 70%

E3 Alliance Analysis of Ready, Set, K! weighted data
Kindergarten Readiness Status Strongest Predictor

Odds Ratios for Factors in Kindergarten that Predict Passing STAAR in 3rd Grade, Central Texas

- Kindergarten Ready: 4.4 (Math), 5.0 (Reading)
- Non-low income: 2.1 (Math), 2.2 (Reading)
- English Language Learner: 1.8 (Math), 1.7 (Reading)

Odds of Passing 3rd Grade STAAR (Phase 1 Standard)

E3 Alliance analysis of Ready,Set, Ki and data at the Education Research Center at UT Austin; odds ratios from model with income, ELL, gender, ethnicity, Kinder ready status as predictors; Kindergarten in 2011-12
Kindergarten Readiness Even More Predictive of Advanced Performance on STAAR Math

Odd Ratios for Meeting STAAR Standard if Ready for Kindergarten, Central Texas

- Passing Standard (Phase 2)
  - Math: 3.6
  - Reading: 3.1

- Advanced Standard
  - Math: 6.3
  - Reading: 4.0

Odds of Meeting Standard on 3rd Grade STAAR if Kindergarten Ready

E3 Alliance analysis of Ready, Set, K! and data at the Education Research Center at UT Austin; odds ratios from model with income, ELL, gender, ethnicity, Kinder ready status as predictors; Kindergarten in 2011-12
The conclusions of this research do not necessarily reflect the opinions or official position of the Texas Education Agency, the Texas Higher Education Coordinating Board, or the State of Texas.

E³ Alliance

e3alliance.org/profile