

# ISAT Effect Sizes 2015-2019

Idaho Standards Achievement Tests (SBAC)  
Mathematics and English Language Arts  
Idaho Public Schools, Grades 3-8 and 10

Bert Stoneberg, Ph.D.  
K-12 Research Idaho  
Idaho Ed Statistics

## Important notes:


The effect size used for this PowerPoint represents the practical significance of the difference between two means, not a statistical significance between two means. The effect size acts like a z-score.

If this year's mean is higher than last year's mean, the effect size is indicated by a positive bar ("above the x-axis"). If lower this year than last year, a negative bar is seen ("below the x-axis"). If there is no difference in the mean between this year and last year, there is no bar (the x-axis "stands alone").

**CAUTION:** Compare the magnitude or size of the annual effect sizes **ONLY** on one graph at a time, not with graphs for other grades or the other subject. Excel 2019 selects a y-axis scale that best fills the plot area. This means that bars for large annual effect sizes or a large trend effect size are "reduced in size" to FIT the plot area. On the other hand, bars for small annual effect sizes or trend effect sizes are "increased in size" to FILL the plot area.

Excel spreadsheet was used to calculate effect sizes (screen shot).

Effect Size Calculator	
Group 1 / Last Year / Pretest	
Mean	Std. Dev.
2508.000	93.170
Enter data in yellow cells.	
Group 2 / This Year / Posttest	
Mean	Std. Dev.
2511.000	91.360
Effect Size	
0.033	



**Effect Size**

Pooled  
Standard  
Deviation

$$\frac{\bar{X}_2 - \bar{X}_1}{\sqrt{\frac{s_1^2 + s_2^2}{2}}}$$

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<http://k12researchidaho.com/pdf/calculators-effectsizes-percentiles.zip>

# Mathematics Effect Sizes

## Summary of Statewide Effect Sizes for Mathematics

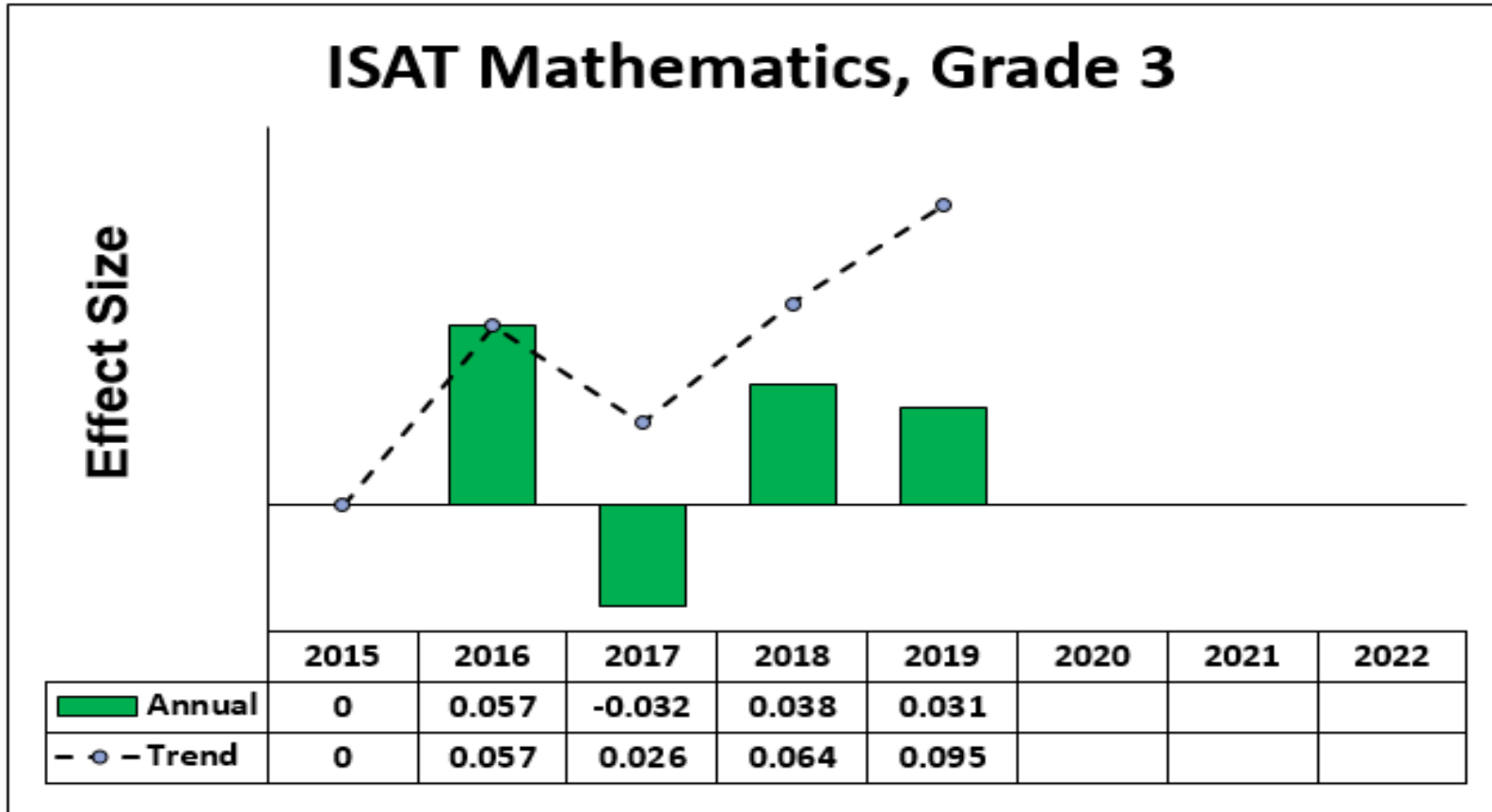
Statewide from 2015 to 2019, trend effect size for ISAT Mathematics were positive for all grades (3, 4, 5, 6, 7, 8, and 10)

Statewide from 2015 to 2016, the ISAT Mathematics effect sizes were positive for all grades (3, 4, 5, 6, 7, 8, and 10).

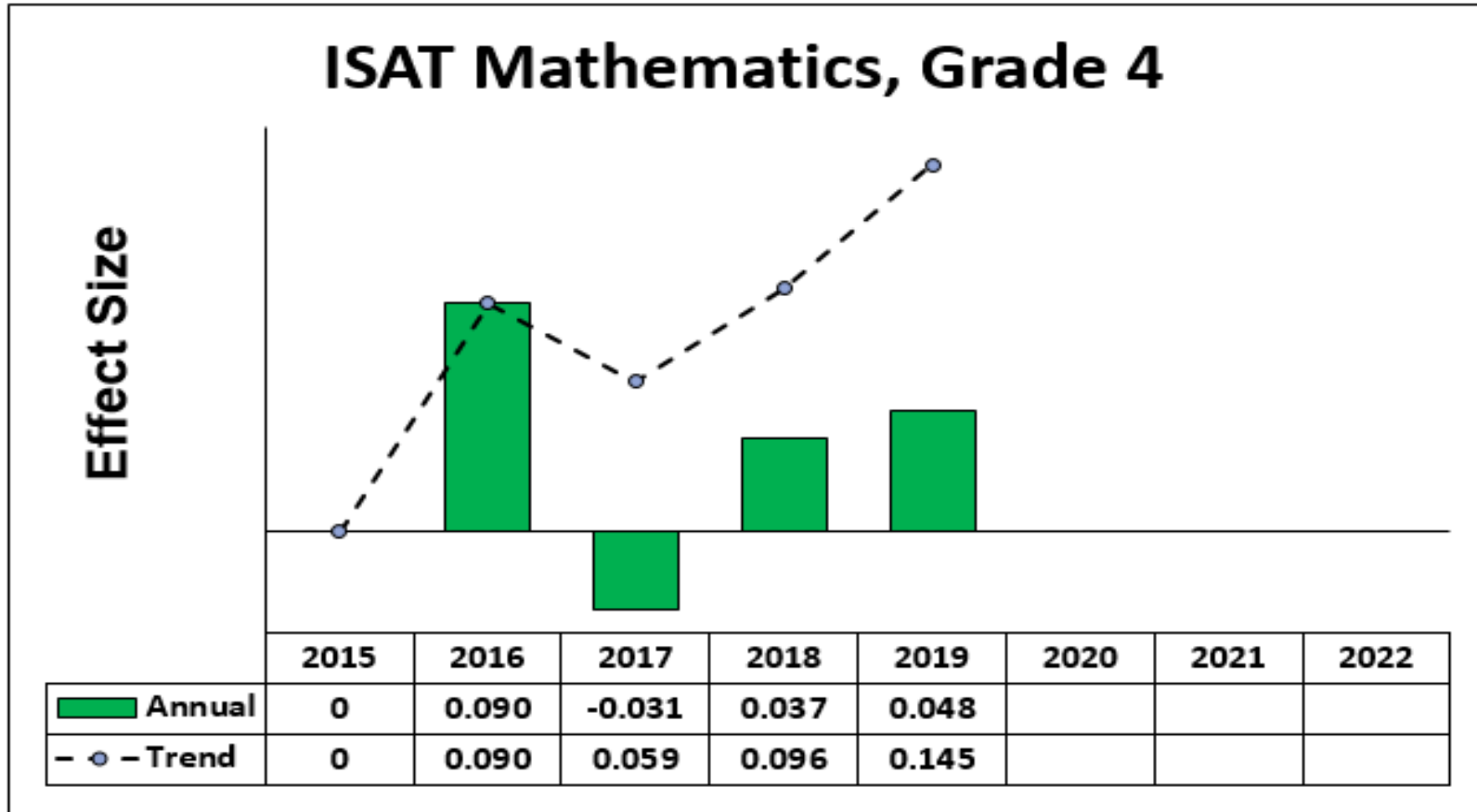
Statewide from 2016 to 2017, the ISAT Mathematics effect sizes were positive for three grades (5, 6, and 10), and negative for four grades (3, 4, 7, and 8).

Statewide from 2017 to 2018, the ISAT Mathematics effect sizes were positive in six grades (3, 4, 5, 6, 8, and 10), and zero for one grade (7).

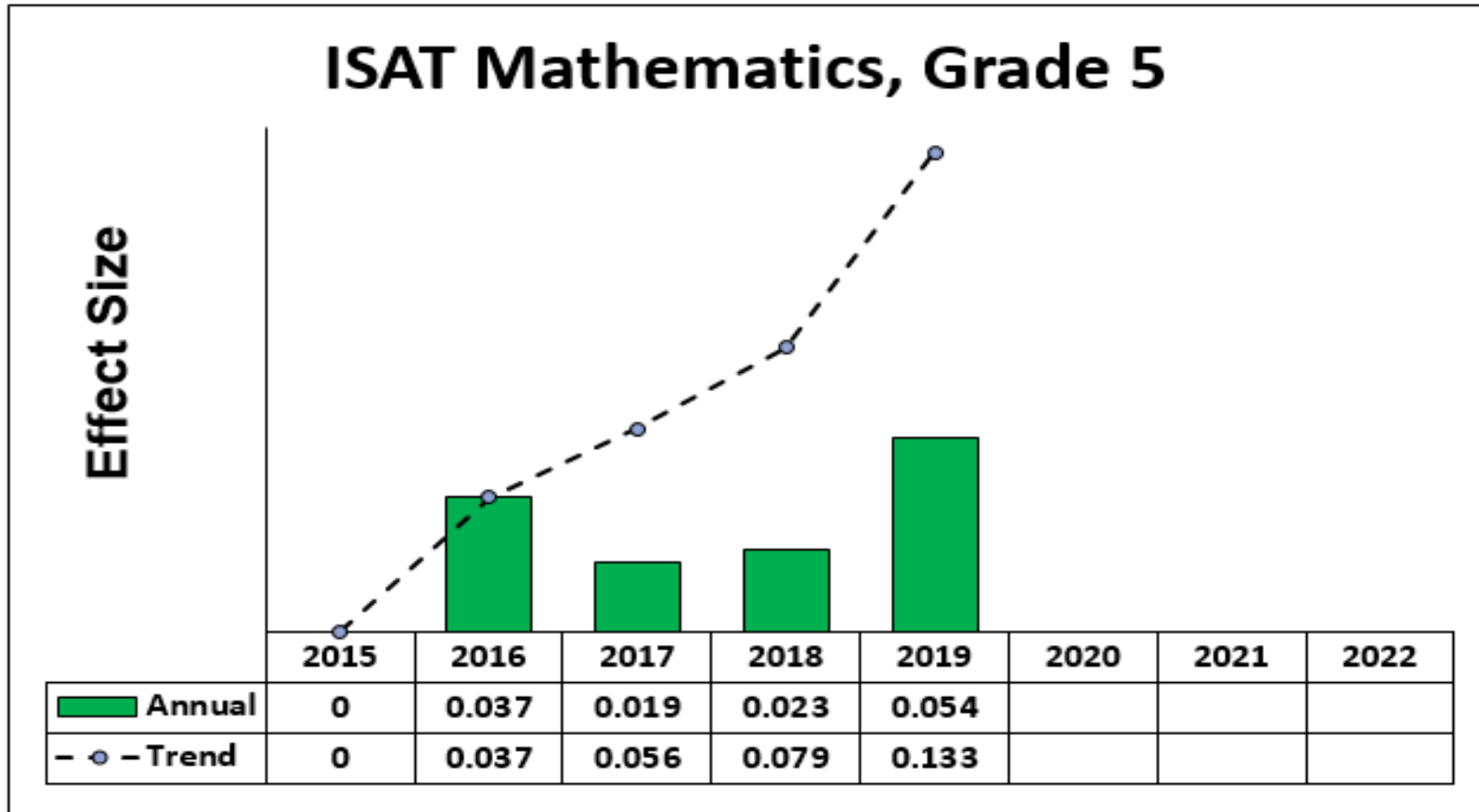
Statewide from 2018 to 2019, the ISAT Mathematics effect sizes were positive for all seven grades (3, 4, 5, 6, 7, 8, and 10)



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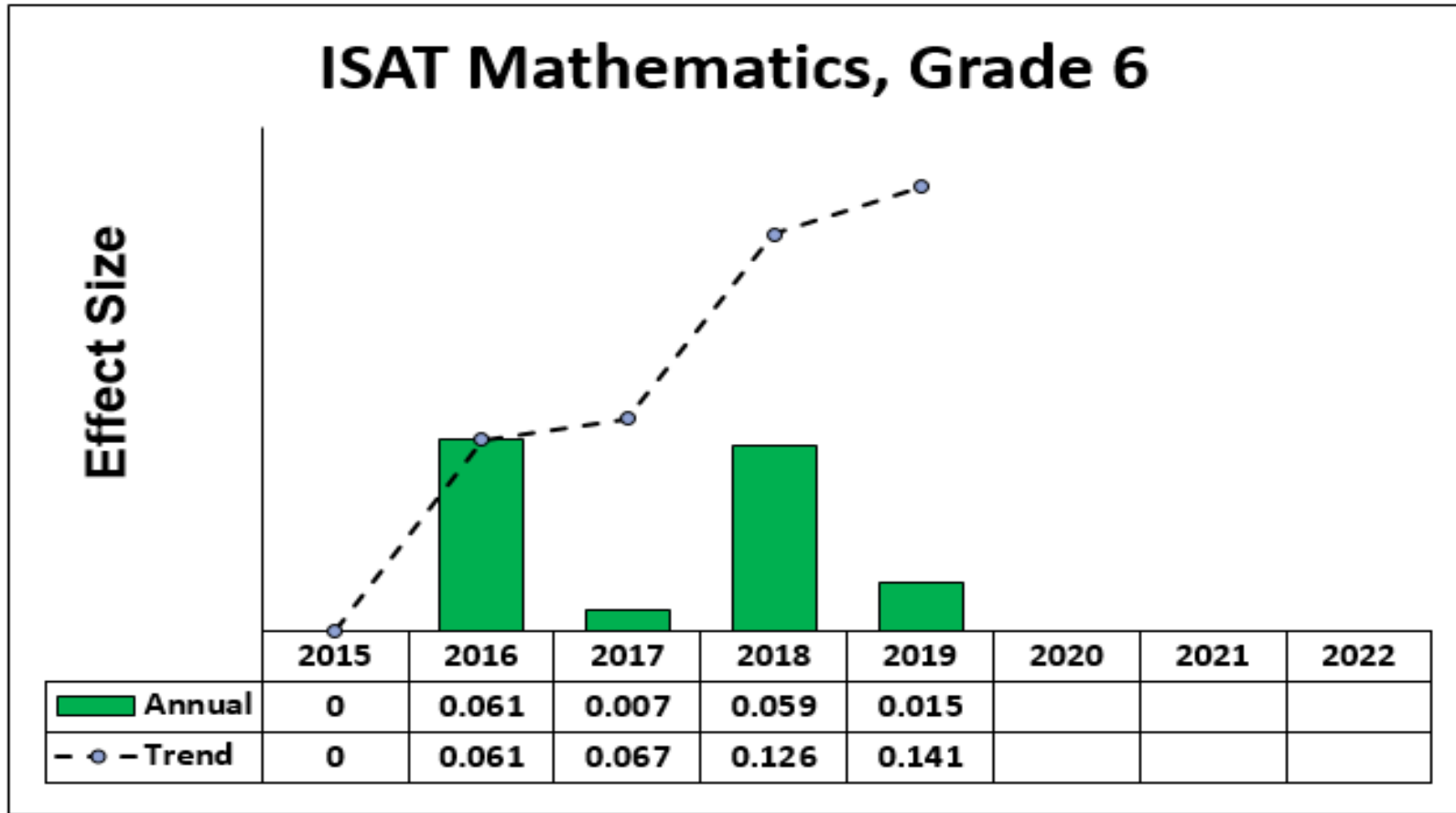


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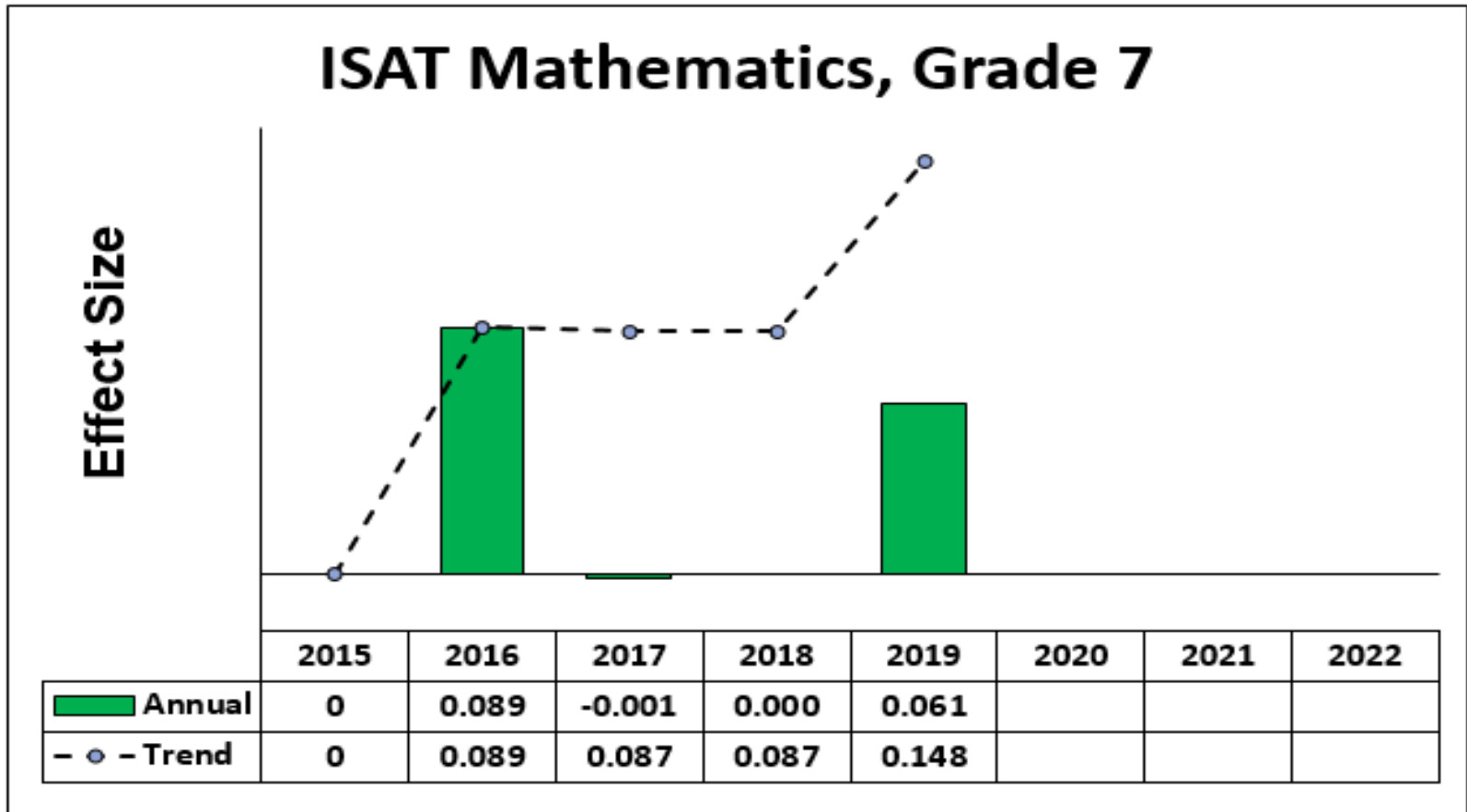


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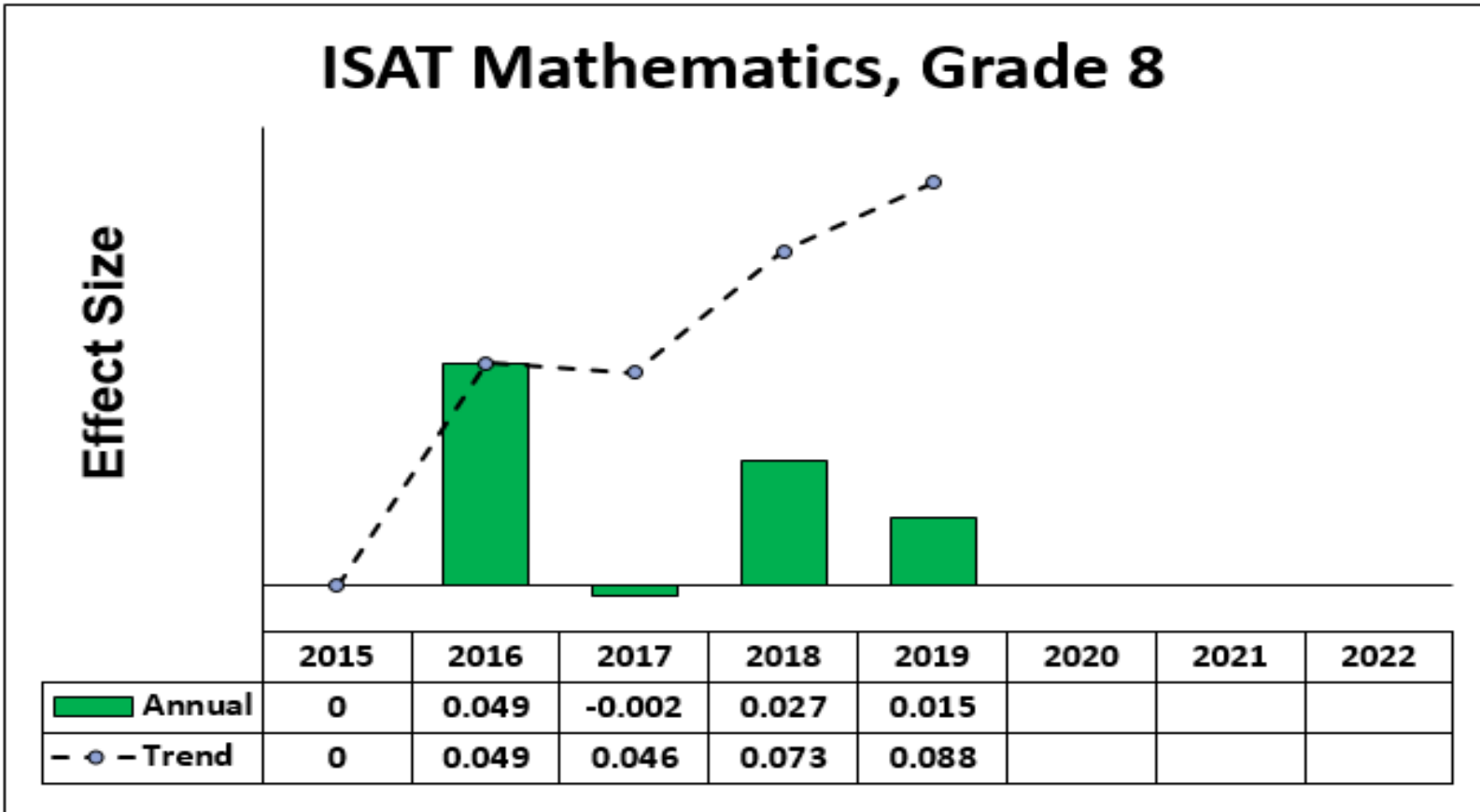




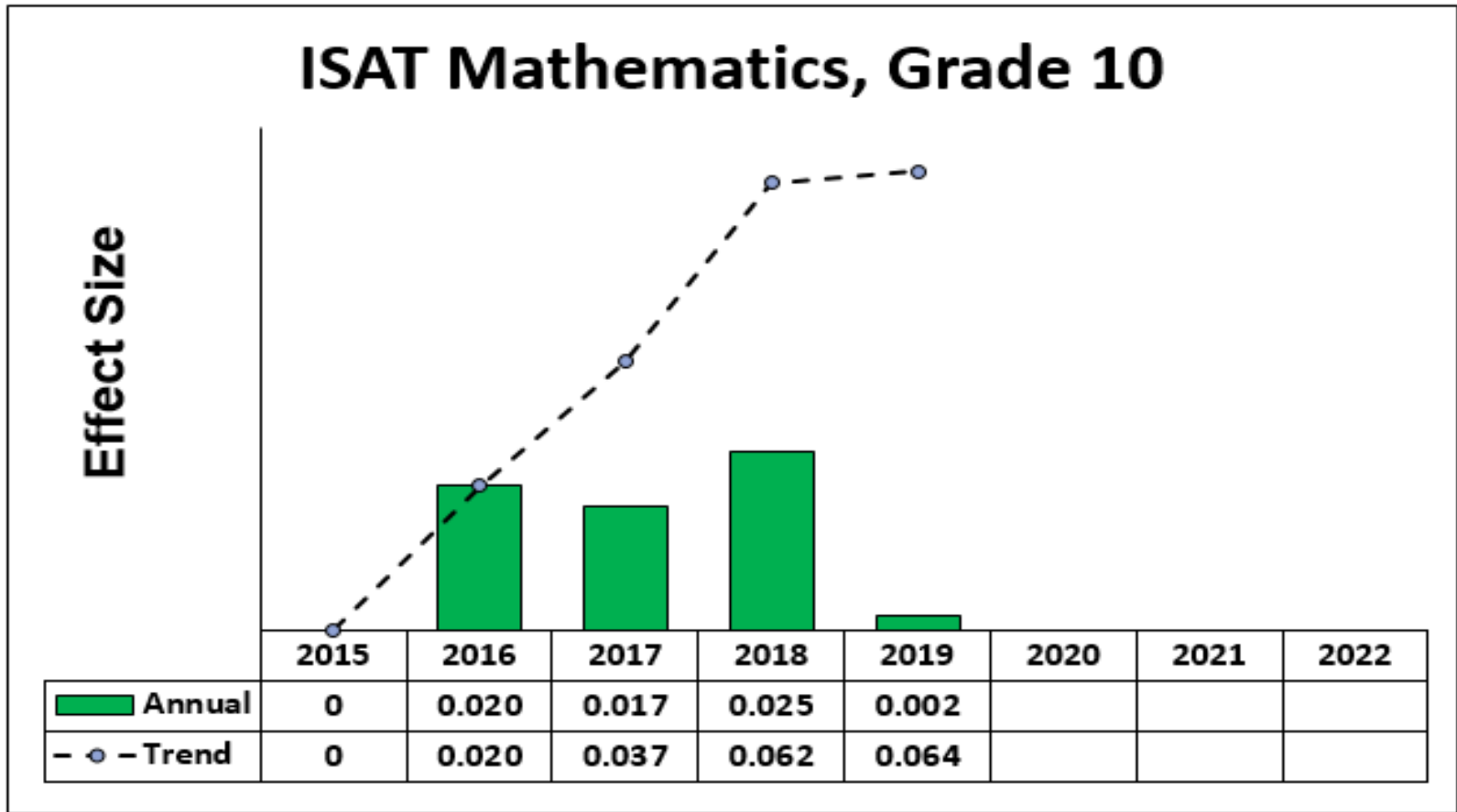
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# English Language Arts Effect Sizes

## Summary of Statewide Effect Sizes for English Language Arts

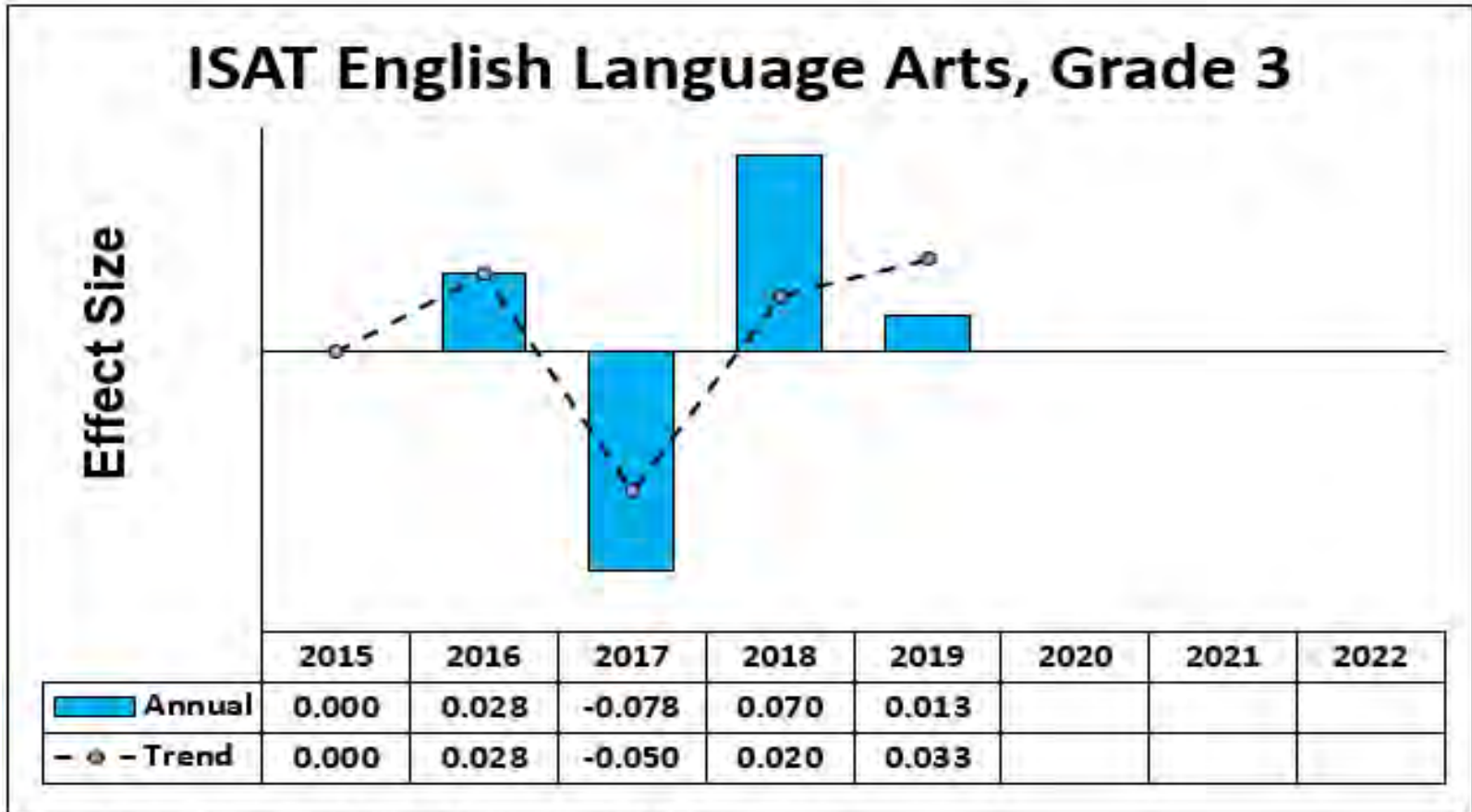
Statewide from 2015 to 2019, trend effect sizes for ISAT English Language Arts were positive for six grades (3, 4, 5, 6, 7, 8), and negative for one grade (10).

Statewide from 2015 to 2016, the ISAT English Language Arts effect sizes were positive for all seven grades (3, 4, 5, 6, 7, 8, and 10).

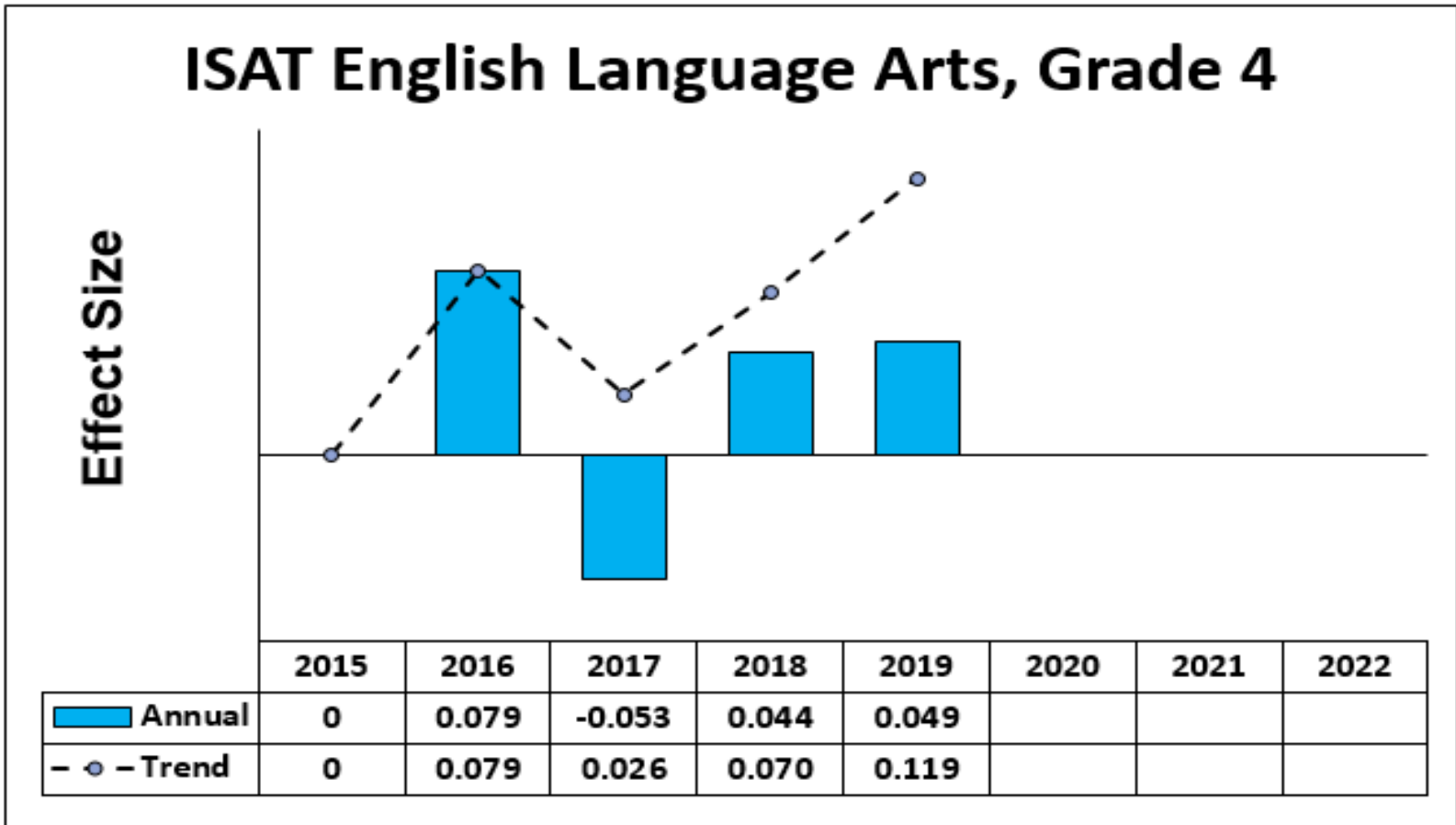
Statewide from 2016 to 2017, the ISAT English Language Arts effect sizes were negative for all seven grades (3, 4, 5, 6, 7, 8, and 10).

Statewide from 2017 to 2018, the ISAT English Language Arts effect sizes were positive in six grades (3, 4, 5, 6, 8, and 10), and zero for one grade (7).

Statewide from 2018 to 2019, the ISAT English Language Arts effect sizes were positive for six grades (3, 4, 5, 6, 7, 8), negative in one grade (10).

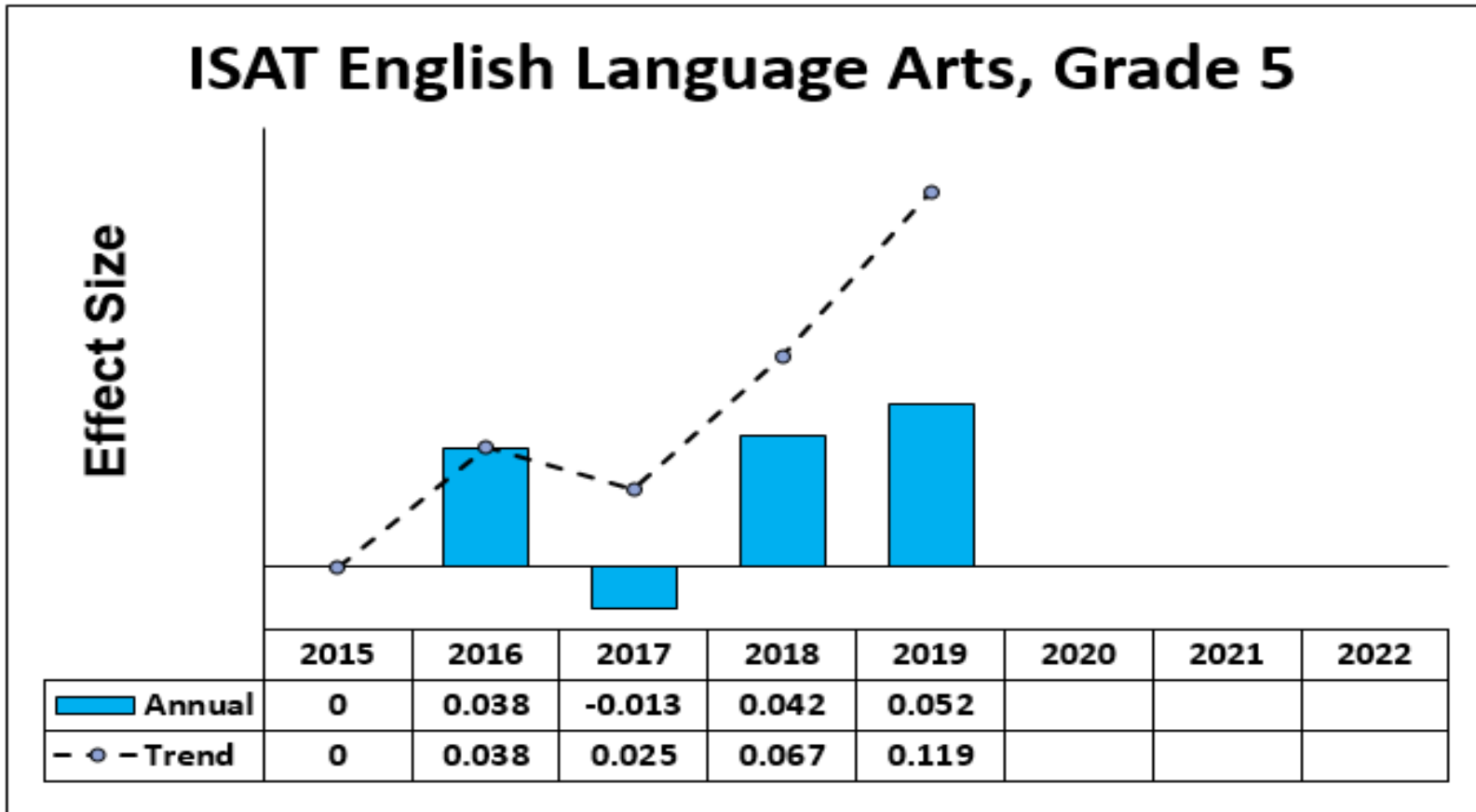


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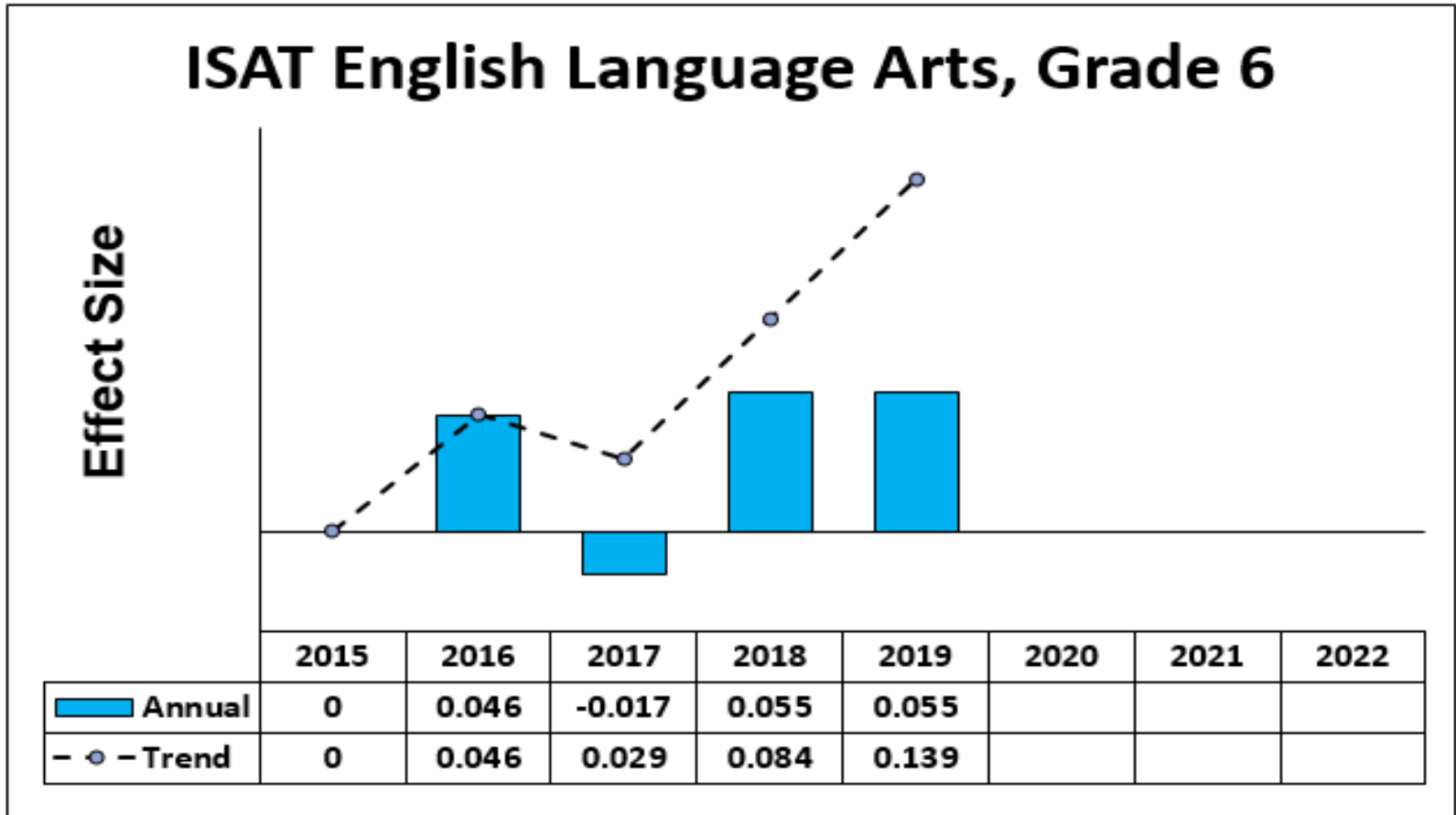


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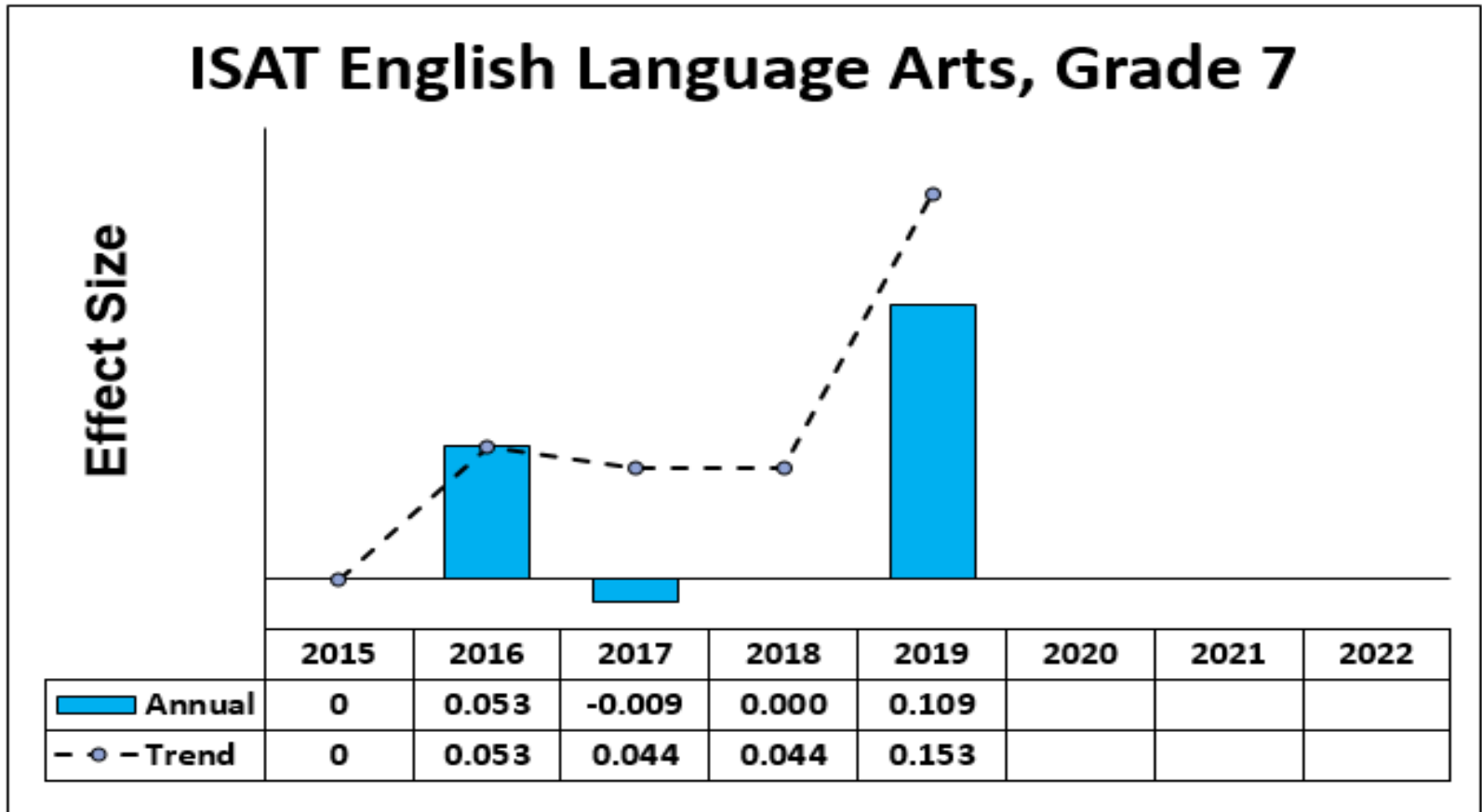




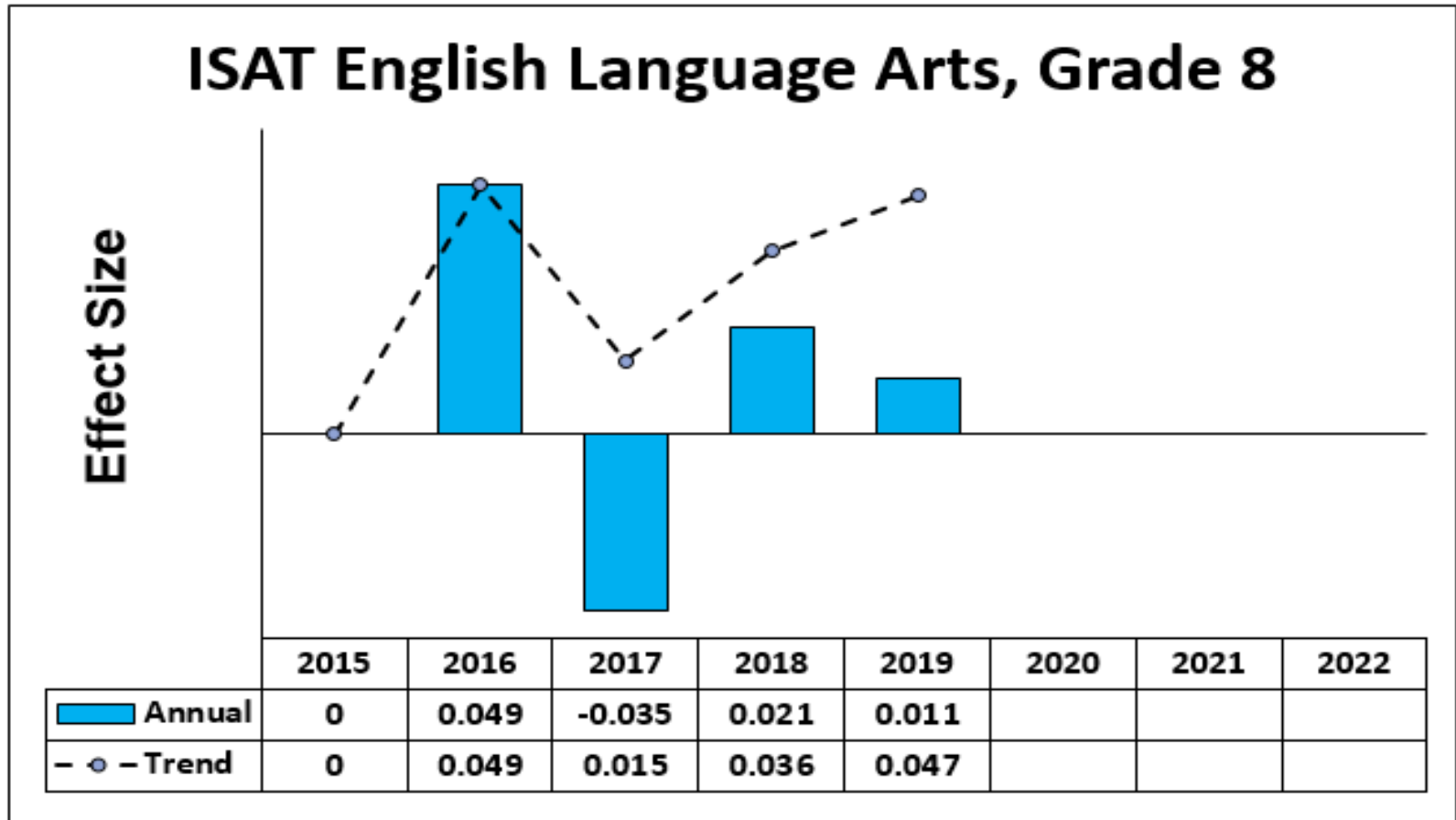
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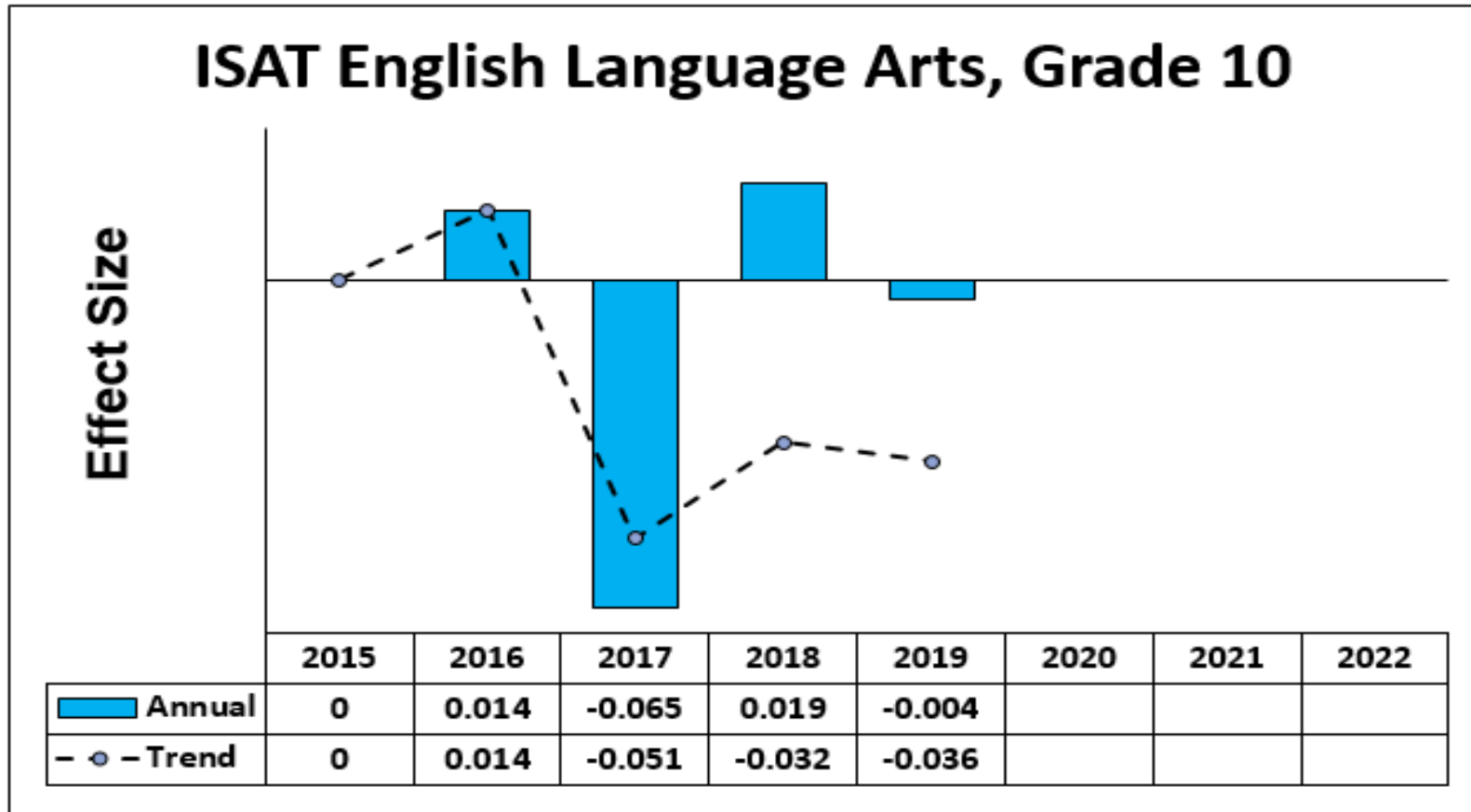
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**Bert Stoneberg, Ph.D.**  
**K-12 Research Idaho**  
Idaho Ed Statistics  
**P.O. Box 5912**  
**Boise, Idaho 83705**

Email [bert@k12researchidaho.com](mailto:bert@k12researchidaho.com)  
Visit <http://k12researchidaho.com>

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