




River Forest Public Schools

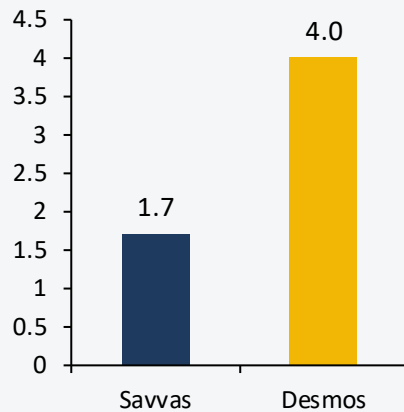
Math Curricula Evaluation

**April 21, 2026
Presentation to the School Board
by Duncan Chaplin**

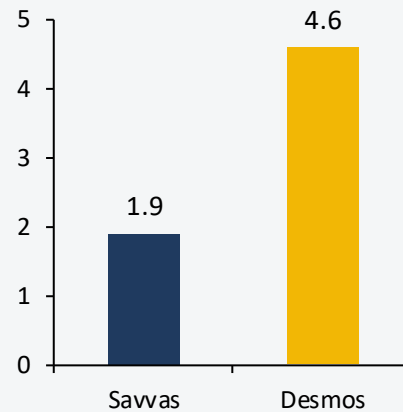
New Math Curricula Implemented in River Forest

- What effects do Savvas Investigations and Desmos have on math scores in River Forest?
 - Investigations: Grades 3–5 starting 2017–18
 - Desmos: Grades 6–8 starting 2023–24
 - Data: Spring 2015 to Spring 2025
 - Outcome: Standardized math scores
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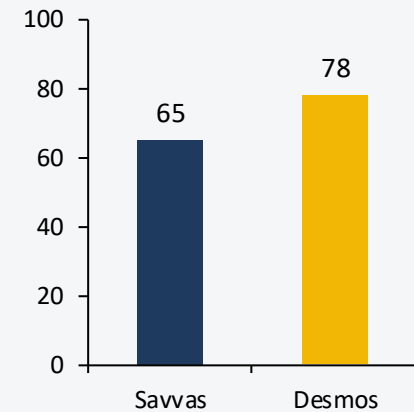
Both curricula likely improved math scores; Desmos effect appears larger



Estimated effects
positive on
standardized math
IAR scale scores



Implied positive percentile
point shift for a student
starting at the
50th percentile

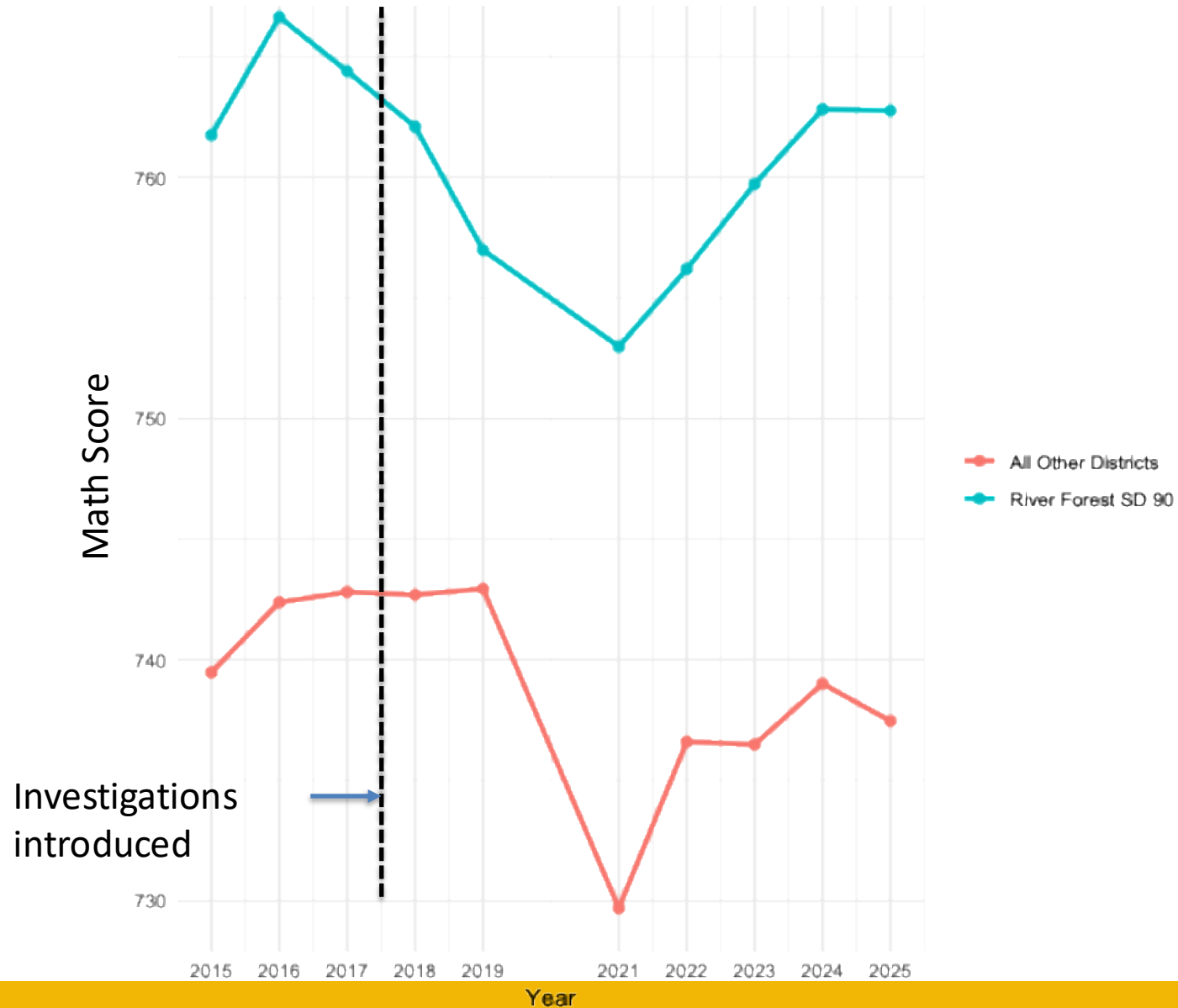


Probabilities that
the true effects are above
zero are over 65 percent
but below 80 percent

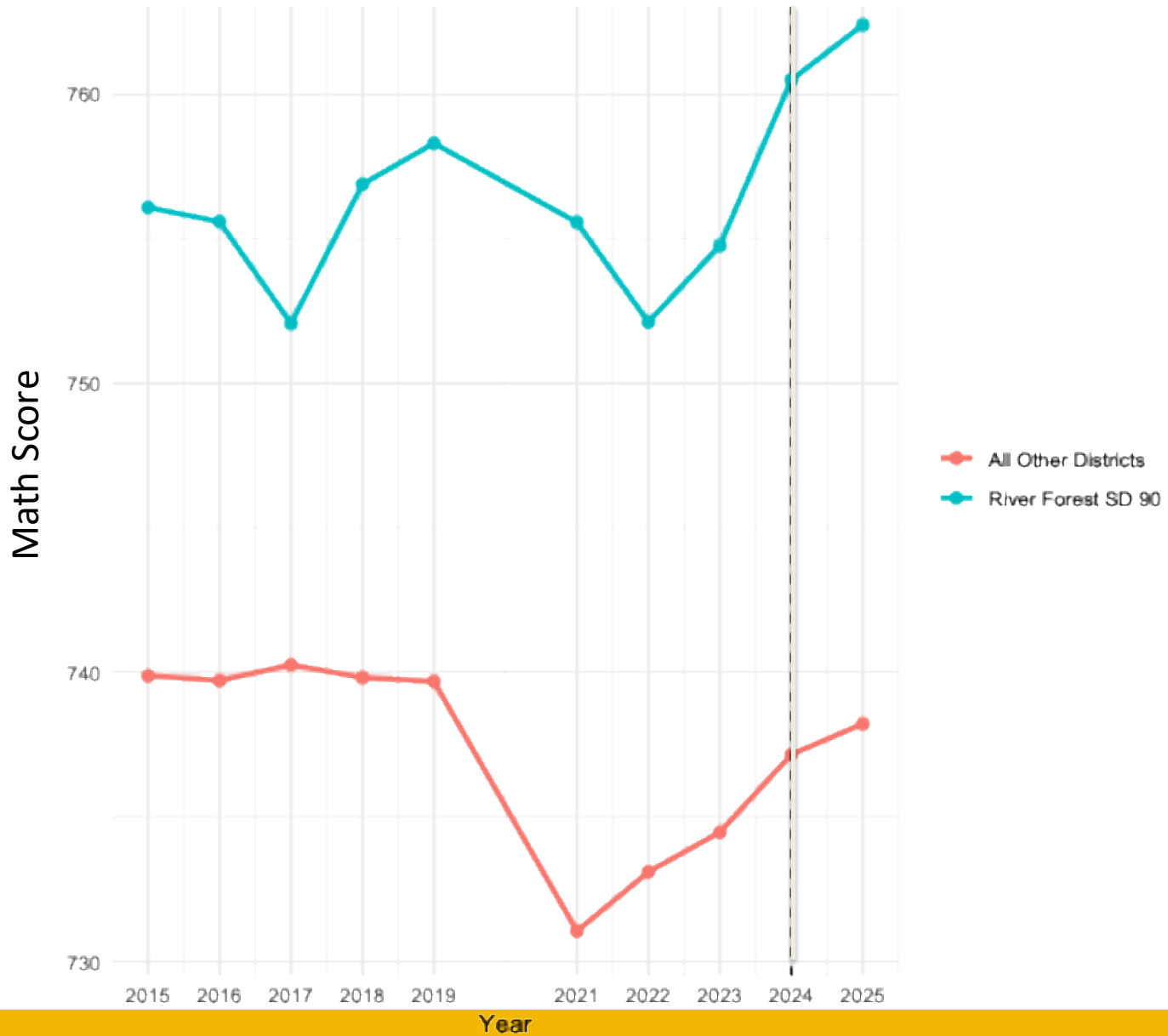
Summary of Findings

- Evidence not definitive but does suggest that both curricula helped
- Effects of Desmos appear larger than for Investigations

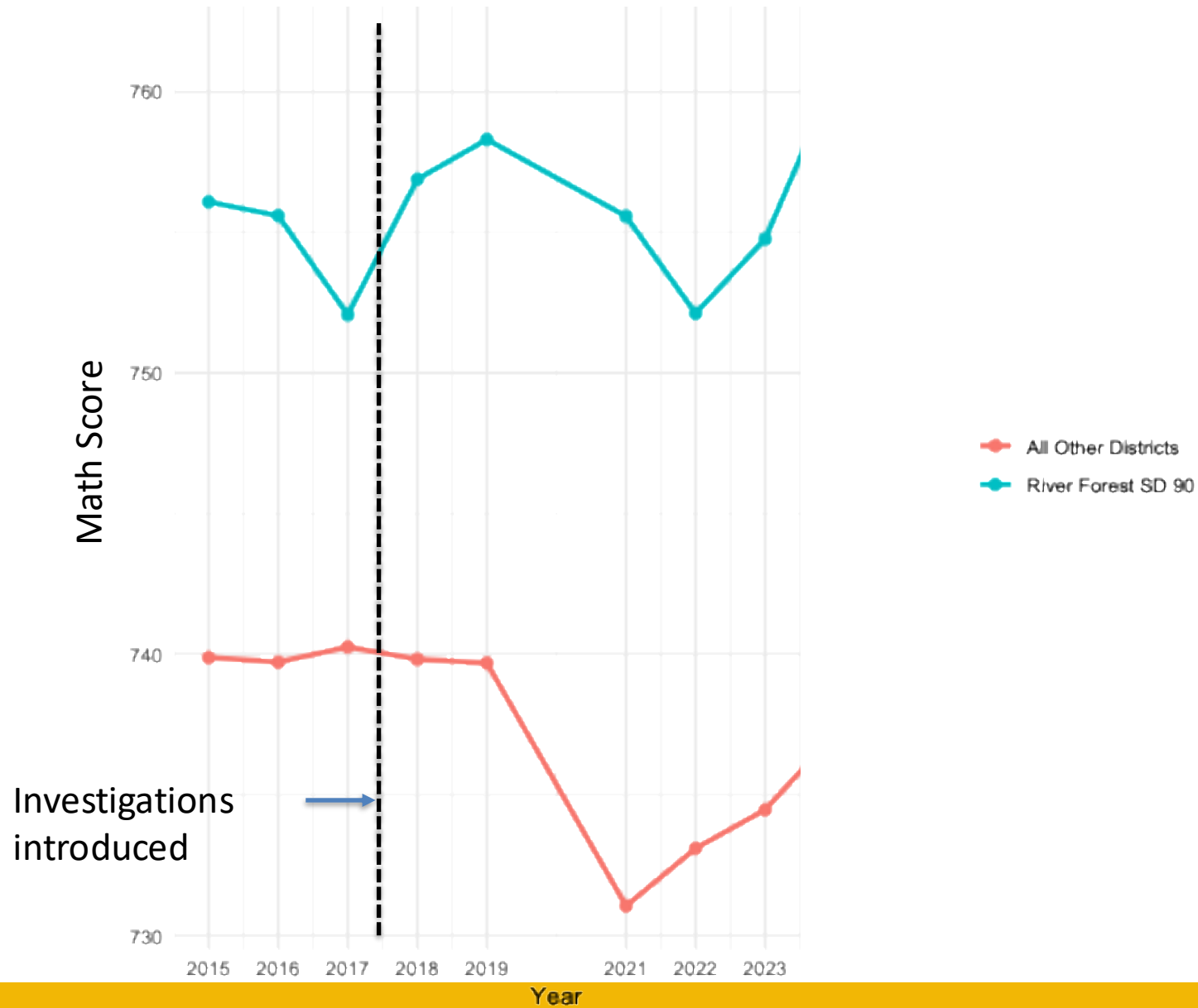
Math Scores Grades 3-5: River Forest vs Comparison Districts



Math Scores Grades 6-8: River Forest vs Comparison Districts

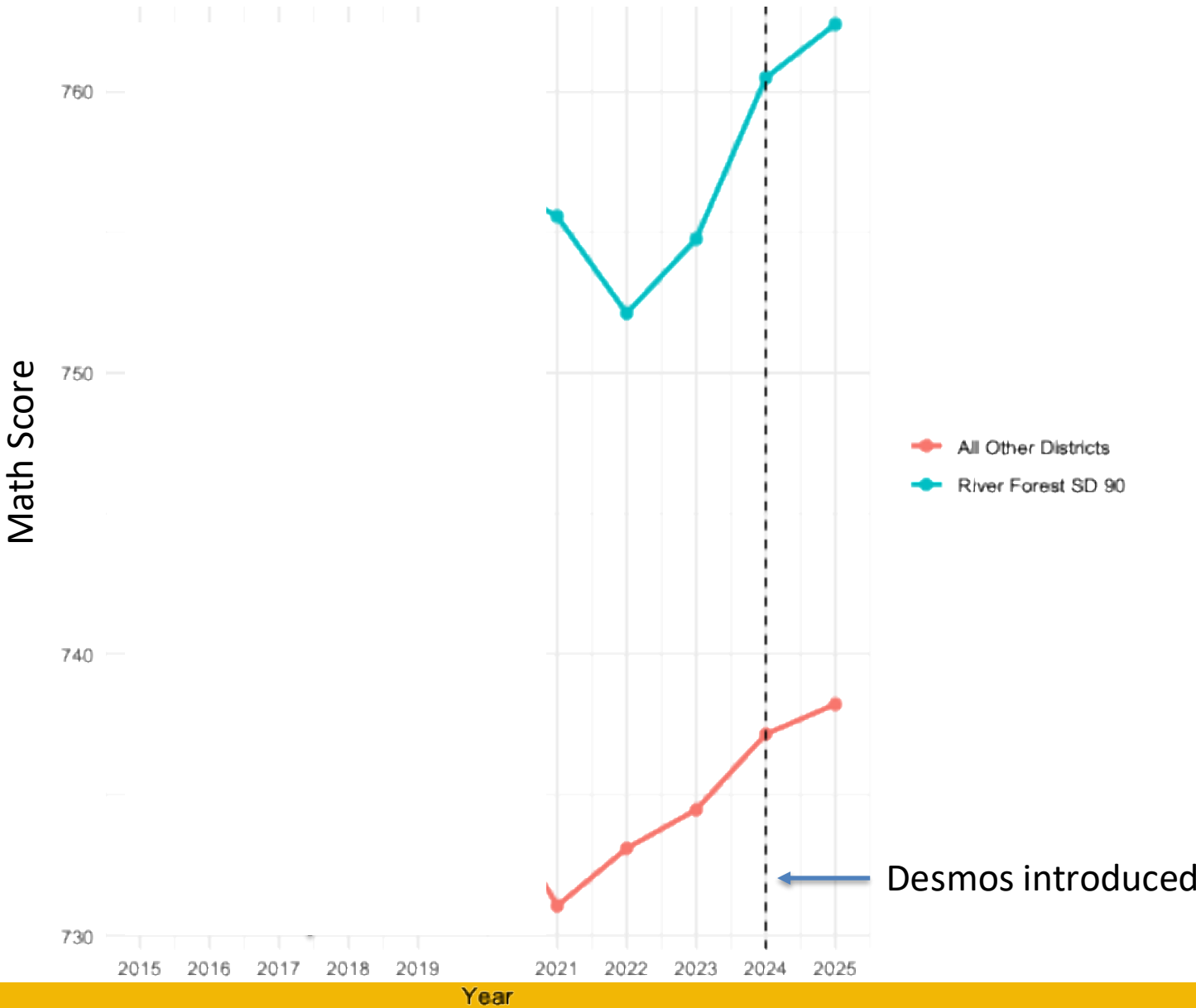


Math Scores Grades 6-8: Investigations Time Period River Forest vs Comparison Districts



Math Scores Grades 6-8: Desmos Time Period

River Forest vs Comparison Districts



Methods

- Compared River Forest to similar suburban elementary districts in the Chicago area with comparable pre-2018 performance patterns
- Controlled for other curriculum (Investigations or Desmos), district, year, grade, Race, ethnicity, English language status, special education, income, enrollment, prior ELA scores.
- Controls for district get rid of differences in mean scores between River Forest and comparison districts

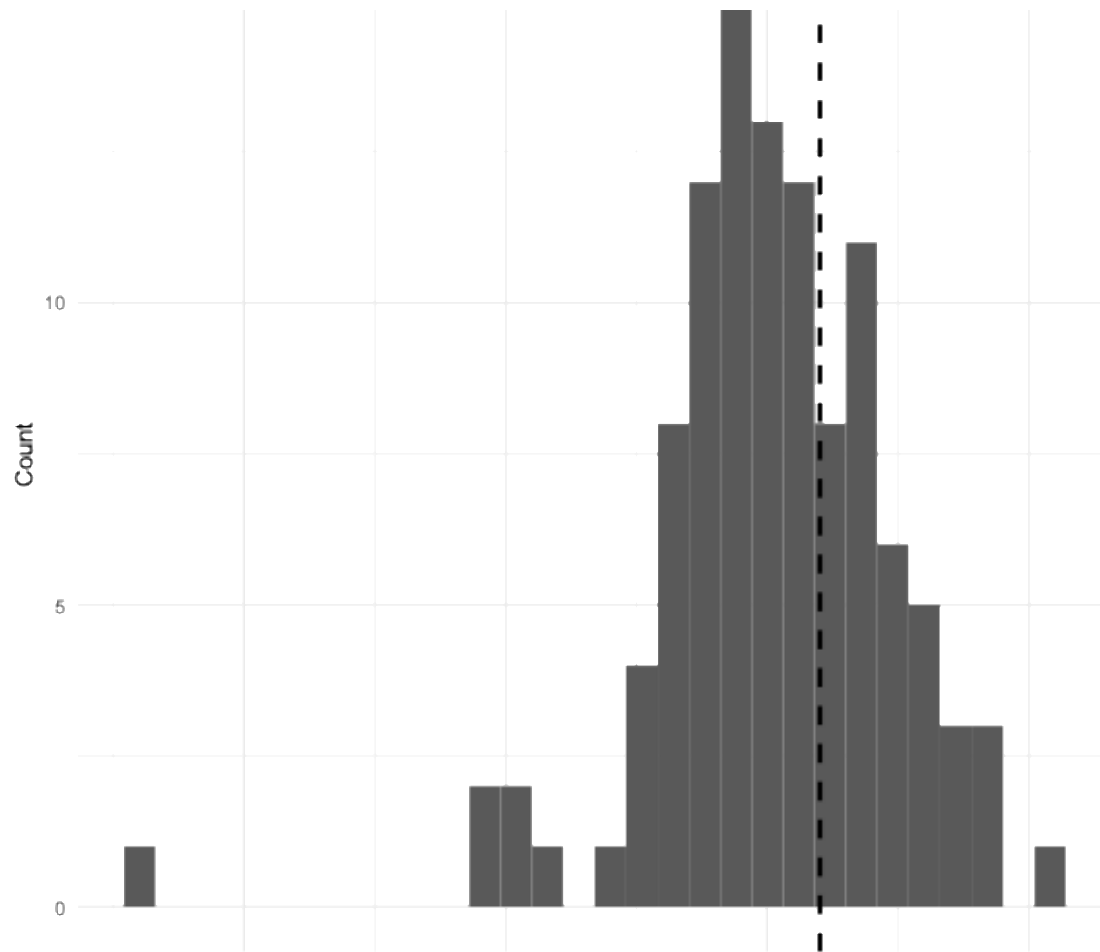
Problems with Outcomes

- No scale scores before 2022.
 - Fractions scoring in each performance category predict most variation in scale scores from 2022 to 2025
 - Predict scale scores using these fractions
- Illinois switched PARCC to IAR in 2019
 - Fractions in each category very similar in 2018 and 2019
 - Predict scale scores before 2019 using PARCC fractions
 - Estimates what IAR scores would have been in those years

Measuring Uncertainty

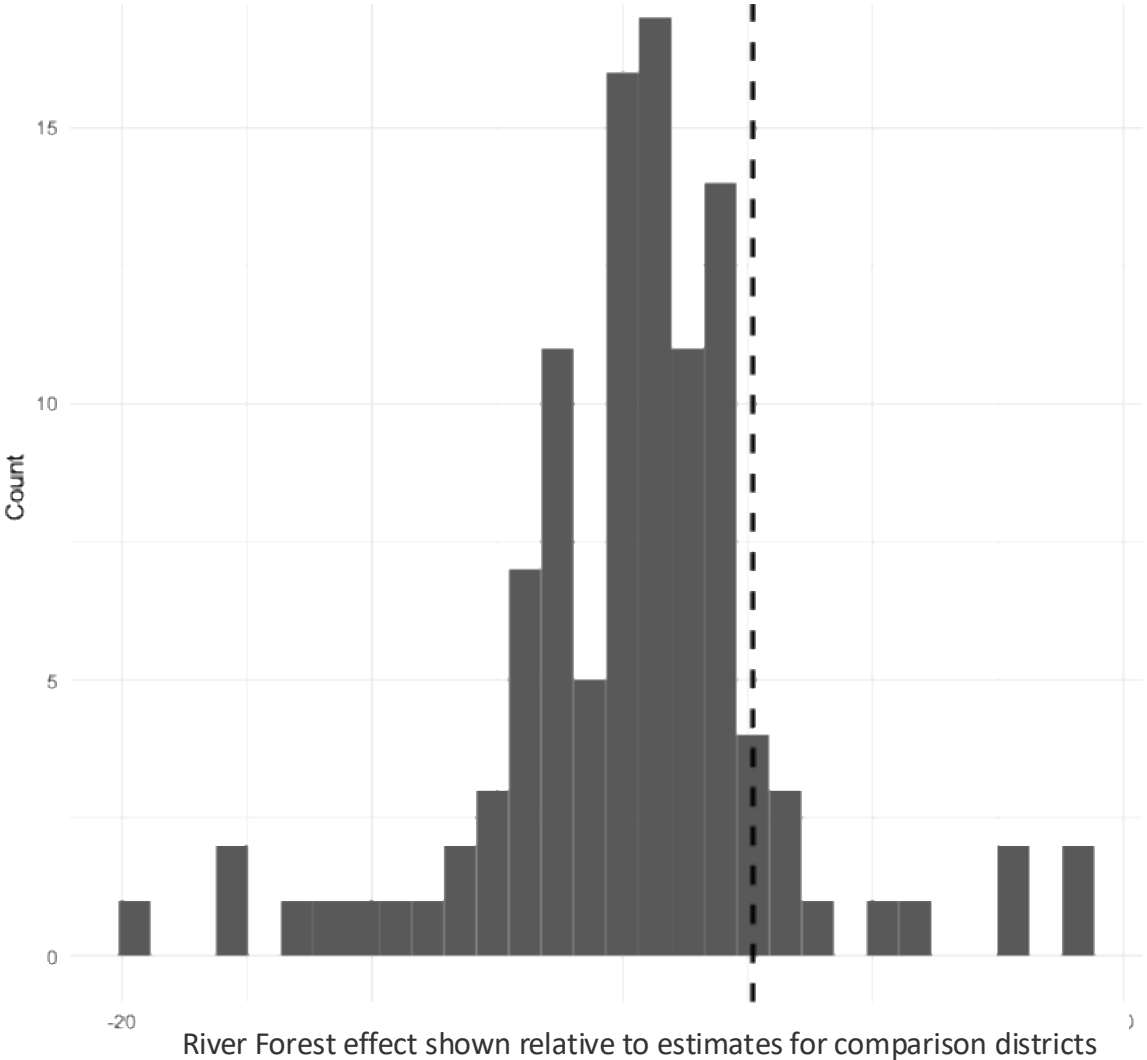
- Used many comparison districts in analysis to ensure sufficient precision
- Estimated effects as if new curricula were implemented in each comparison district
- Compared estimate for River Forest with estimates found for other districts
- Requires fewer assumptions than standard methods of capturing uncertainty

River Forest Effect Estimate for Investigations Higher than for Most Comparison Districts



River Forest effect shown relative to estimates for comparison districts


River Forest effect Estimate for Desmos Higher than for Most Comparison Districts



Conclusions

- No evidence of negative effects
- Positive effects likely (>65%), especially for Desmos
- Curricula are cost-effective if cost is low compared to alternative
- Probably no need to switch curricula

Caveats

- Not Random Assignment
 - Curricula may be expensive
 - Other districts may have been implementing Investigations and/or Desmos
 - Longitudinal data and related code now available
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Questions