



District 97
Increased Access to Math Enrichment
and
Acceleration Placement for Qualifying Students

Internal Discussion Working Draft
Not for Distribution

October 15, 2019

Contents of Report



- Background Information
- Executive summary:
 - Purpose
 - Approach
 - Summary of findings
- Analysis:
 - Framing and background analysis
 - Changes in Math RIT Scores:
 - For Math GTD students compared to non GTD students
 - By school size (overall and for Math GTD students)
 - For subgroups: Low Income Students, Students with IEPs, and African American Students



Background Information

History of “Step-Up” GTD Program



- The “step -up” programs were originally meant to provide content that was above and beyond the differentiation students receive in the classroom.
- This service has historically been tied to mathematics and has resulted in students being removed from their classrooms to receive “pull-out” services delivered by a GTD teacher.

History of “Step-Up” GTD Program



- The processes used to identify and support students relied heavily on performance on standardized achievement measures. The district has made gains in ensuring that the criteria are more inclusive.
- The current criteria are outlined below.
- Participants in these programs were not representative of the rich diversity of the district.

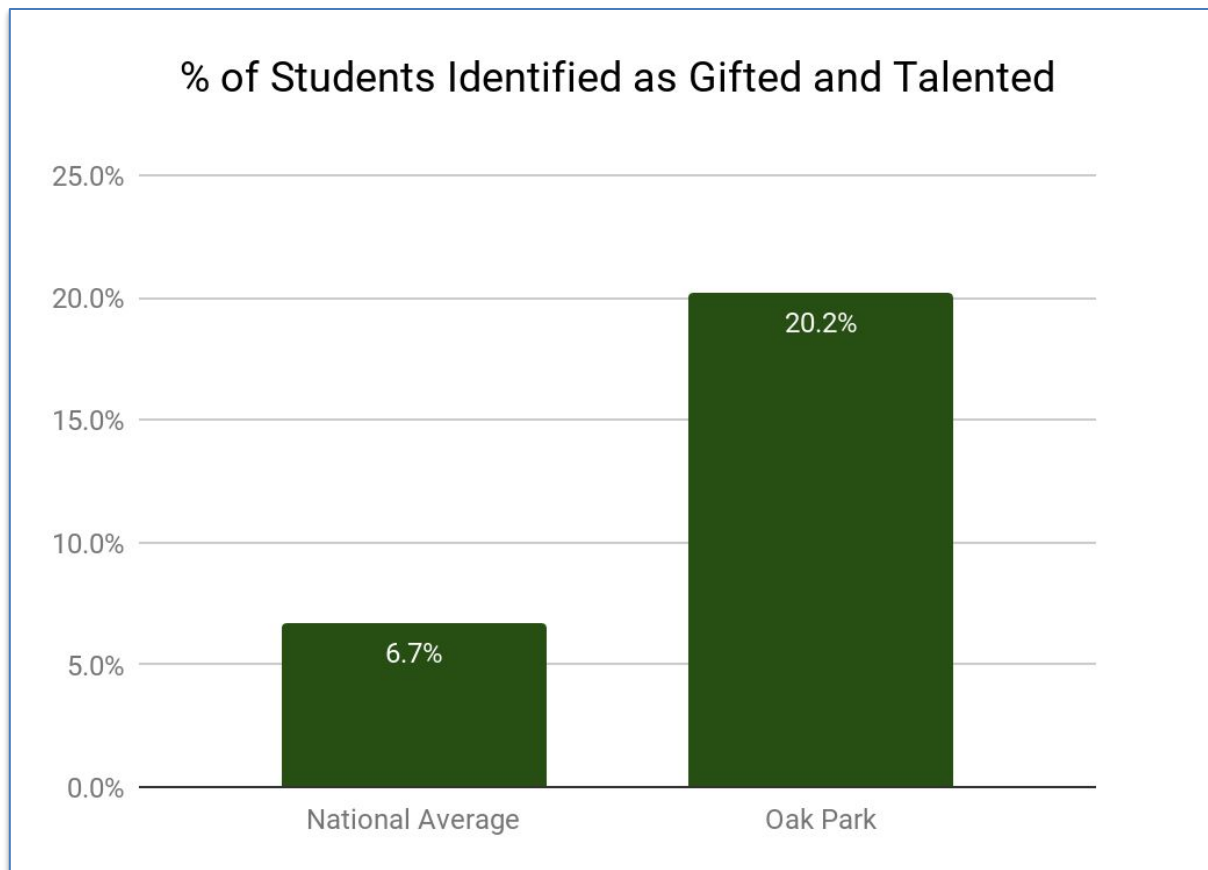
NWEA MAP Assessment: *95th percentile+ on 2 of the 3 most recent assessments*

CogAT Standard Age Score: *130-150*

Teacher Observation Checklist: *Reviewed by GTD teachers*



Students in Oak Park are identified as GTD at a rate that is three times higher than the US average



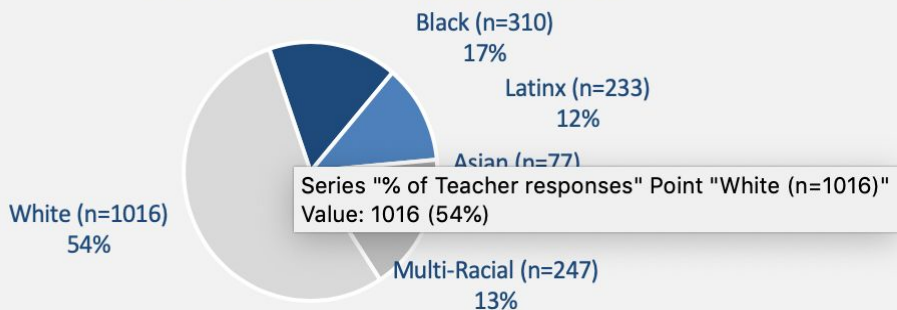
Source: D97 2018-19 Data ; Includes only 3rd, 4th and 5th grade students, as these are the primary grades where GTD is identified; National Data from the National Center for Education Statistics (NCES), Table 204.90:: Percentage of public school students enrolled in gifted and talented programs, by sex, race/ethnicity, and state: Selected years, 2004 through 2013-14



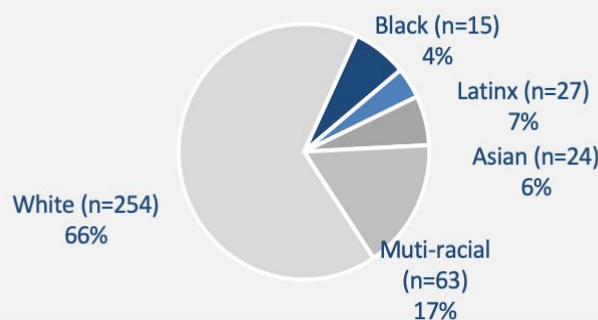
But our GTD program serves few black, Latinx and low income students even though we have a diverse student body.

Black and Latinx make up 29% of students in GTD grades, but only 11% of GTD students

Oak Park Students in Grades 3, 4, and 5

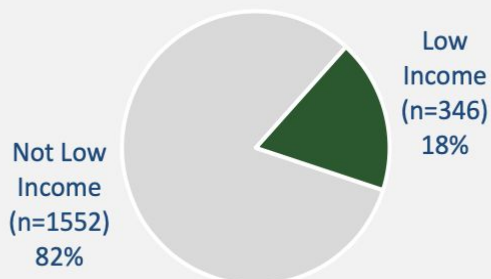


GTD Students in Grades 3, 4, and 5

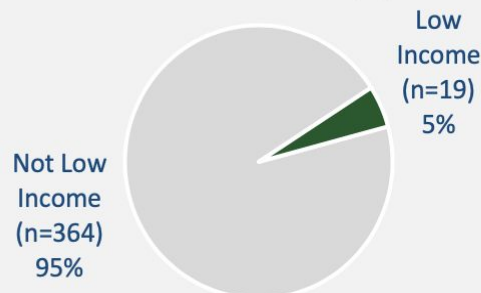


Low Income students make up 18% of students in GTD grades, but only 5% of GTD students

Oak Park Students in Grades 3, 4, and 5



GTD Students in Grades 3, 4, and 5

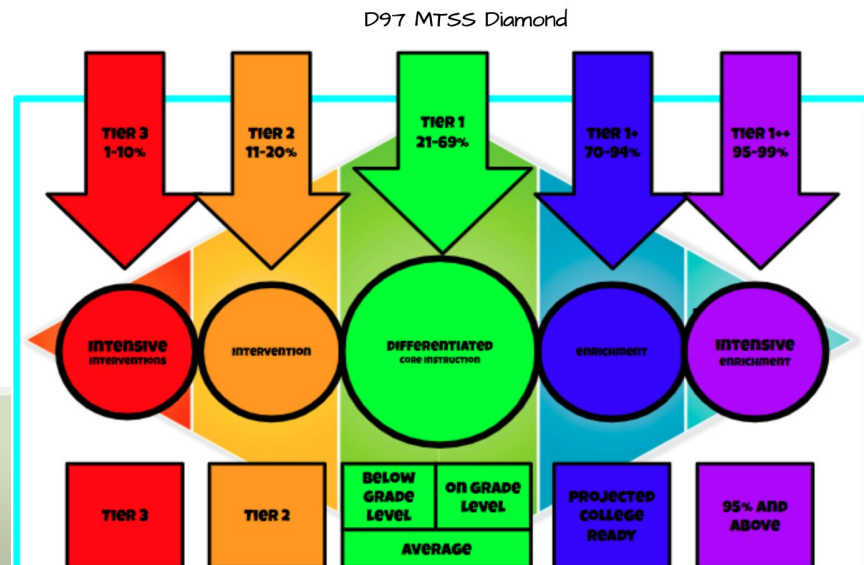


Source: D97 2018-19 Data ; Includes only 3rd, 4th and 5th grade students, as these are the primary grades where GTD is identified

Creating Inclusive Conditions for All



- In SY16, D97 introduced research-based math curricular materials (Eureka Mathematics) at K-5 level
- Beginning in SY18, D97 implemented new structures, practices, and systems to provide enrichment to students in mathematics classrooms by
 - Use of pre-assessments to all students, every unit
 - Students receive enrichment support if they demonstrate proficient level of content



IL Accelerated Placement Act Takes Effect



Board Policy 6:135 provides guidance for implementation of the Accelerated Placement Act (which took effect July 1, 2018):

Policy found here: <https://tinyurl.com/y52qqbu5>

Procedure found here: <https://tinyurl.com/y3of8p8m>

- Early Admission
- Single Subject Acceleration (reading/math)
- Whole Grade Acceleration



Early Admission/Single Subject and Whole Grade Acceleration: Implementation Timeline

- The district will continue to work to ensure that the Accelerated Placement Act is implemented with fidelity.
- The law requires, among other provisions, that schools ensure that participation in accelerated placement “is not limited to those children who have been identified as gifted and talented, but rather is open to all children who demonstrate high ability and who may benefit from accelerated placement.”



Early Admission/Single Subject and Whole Grade Acceleration: Implementation Timeline

- To this end new procedures will be created to ensure equitable access to acceleration opportunities that allow for multiple stakeholders to refer students for acceleration or early admission to kindergarten or first grade.
- Referral sources include the students themselves.



Early Admission/Single Subject and Whole Grade Acceleration: Implementation Timeline

- Currently, the district is in the midst of a soft launch to codify practices and to determine the resources necessary in order to launch full implementation in SY21.
- In order to prepare for the SY21 launch, stakeholder communication is critical. The district will begin phased information sharing with all stakeholders as indicated below:



Enrichment

- Accessible to all learners
- Provided in the classroom learning space with same age peers
- Flexible entry

Acceleration

- Accessible to some learners
- Removal from same age peers
- Robust entry procedures



How are we supporting teachers?

The Teaching and Learning Department supports teachers in a number of different ways:

- Grades 3-5 Classroom teachers as well as GTD teachers participate in a professional learning series led by Dr. Yvette Jackson.
- The intent of the sessions surround the following key practices:
 - *Identifying and activating student strengths*
 - *Building relationships*
 - *Eliciting high performance*
 - *Providing enrichment*
 - *Integrating prerequisites for academic learning*
 - *Situating learning in the lives of students*
 - *Amplifying student voice*



How are we supporting teachers?

- Grades 3-5 classroom teachers receive additional job embedded support from Lisa Westman.
- Direct support and professional learning topics include:
 - *Planning for differentiated instruction specifically for math*
 - *Planning for differentiated instruction (non-content specific)*
 - *Managing a classroom with a wide-range of learners/needs*
 - *Using formative assessment to inform differentiation*
 - *Using research-based, high impact, instructional strategies*
 - *Ensuring interrater-reliability and collaborative scoring of assessments*
 - *Utilizing technology to support differentiation*
 - *Creating enrichment learning opportunities*
 - *Communicating with families on student progress*



How Are We Doing?



Purpose of this external analysis

As part of the Oak Park D97's vision to create positive learning environments for all D97 students that is equitable, inclusive and focused on the whole child, the district has been increasing access to mathematics enrichment (*of the core mathematics program*) to all of its students.



Purpose of this external analysis

As a result, Oak Park phased out a math step-up process for GTD students as follows :

- **In 2017-18:** Step-up math for GTD only students was phased out in 3rd grade, replaced with access to mathematics enrichment (in the core program) for all 3rd grade students
- **In 2018-19:** Step-up math for GTD only students was phased out in 4th grade, replaced with access to mathematics enrichment (in the core program) for all 4th grade students
- **In 2019-20:** Step-up math for GTD only students is being phased out in 5th grade, replaced with access to mathematics enrichment (in the core program) for all 5th grade students



Purpose of this external analysis

- This analysis looks at whether the change from “GTD-only step-up” to “enrichment for all students” correlates with changes in student outcomes.
- Specifically, this analysis will focus on looking at three distinct groups of students:
 - GTD students who were stepped-up in grades 3, 4 and 5
 - GTD students who were not stepped-up in grades 3 and 4 (the 2019-20 school year is the first year grade 5 students will not step up)
 - Other students in the same school/grade-bands



- To gain insight into the potential impact of changes in student outcomes, we looked at changes in math scores as measured by the NWEA MAP Math RIT scores:
 - MAP math test is taken 3x per year for students. For this analysis, we used the changes between the fall Math RIT scores and Spring Math RIT scores to measure student growth during the school year*
 - RIT scores are designed to be compared over time in order to measure student growth

*Only students with both fall and spring RIT scores are included in the analysis



- As requested by the BOE, a key outcome of this analysis is to understand correlations between student growth and the changes made in providing additional access to all students in the core math program.
- Thus, this analysis will be focused on:
 - **For 3rd grade student:** Changes in growth between cohorts who experienced math step-up (SY15-16 and SY 16-17) and those that experienced enrichment (SY17-18 and SY 18-19)
 - **For 4rd grade student:** Changes in growth between cohorts who experienced math step-up (SY15-16 and SY 17-18) and those with enrichment (SY 18-19)



- Finally, the analysis looks to understand the potential impact on the following sub-groups groups of students:
 - Students identified as GTD for math vs. students not identified as GTD for math
 - Students who have the following characteristics: Low Income, African American or an have an IEP
 - Students who attend smaller vs. larger elementary schools



Findings and cautions in interpreting the results

Overall findings:

We did not find consistent, significant correlations between changes to “GTD” students’ growth that align with the years D97 transitioned from math step-up for GTD-only students to math enrichment for all students.



Findings and cautions in interpreting the results

In 3rd grade:

- Math GTD students did not grow as much as in the prior years, but this change was not statistically significant
- Non Math-GTD students grew more than in the prior year, and this change was statistically significant in 18-19
- Low Income students, African American, and students with IEPs all saw math RIT score growth increases in 18-19, the 2nd year of enrichment. However, these results were only statistically significant for African Americans.



Findings and cautions in interpreting the results

In 4rd grade

- In 2018-19, Math GTD students did not grow as much as in the prior years, and this change was statistically significant
- In 2018-19, Non Math-GTD students growth was similar to that in prior years (growth was lower than the prior year, but this was not statistically significant).

Changes in student growth were as likely to happen in the years prior to changes in GTD Math and in 5th grade, which is only now experiencing a transition in GTD math.

Findings and cautions in interpreting the results



Cautions in interpreting the results:

- Even when a result is statistically significant, a correlation between a changes in student growth and changes in the Math GTD program do not prove a causal relationship:
 - Other factors influence student growth, including but not limited to: changes in the curriculum, the strength of individual teachers, entering achievement level, non-random student teacher assignments, etc.
 - For individual students, there is a high amount of variability in student growth on the Math RIT test. In several instances increases and decreases in student growth are not statistically significant.

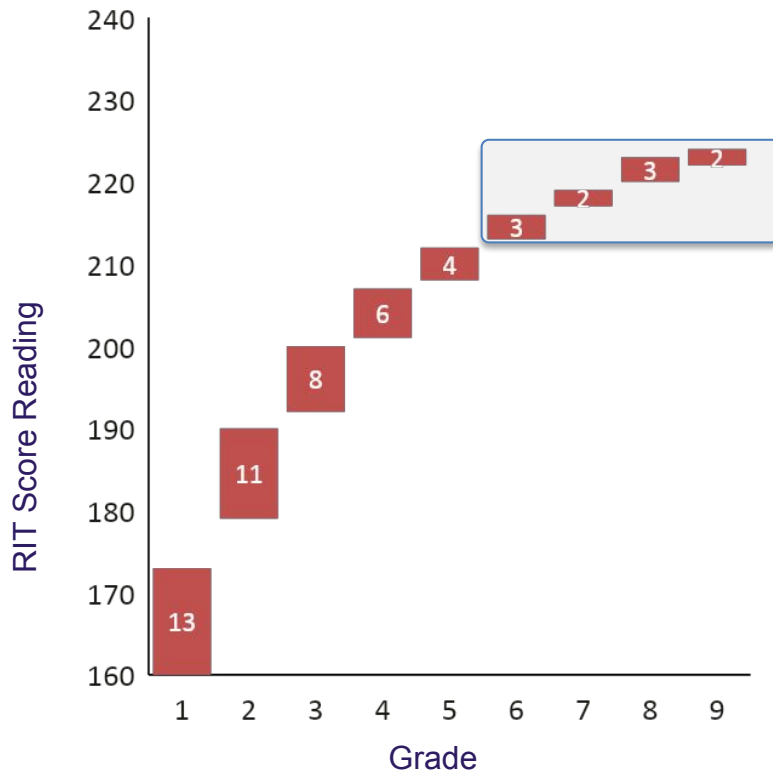


Framing and Background of Analysis

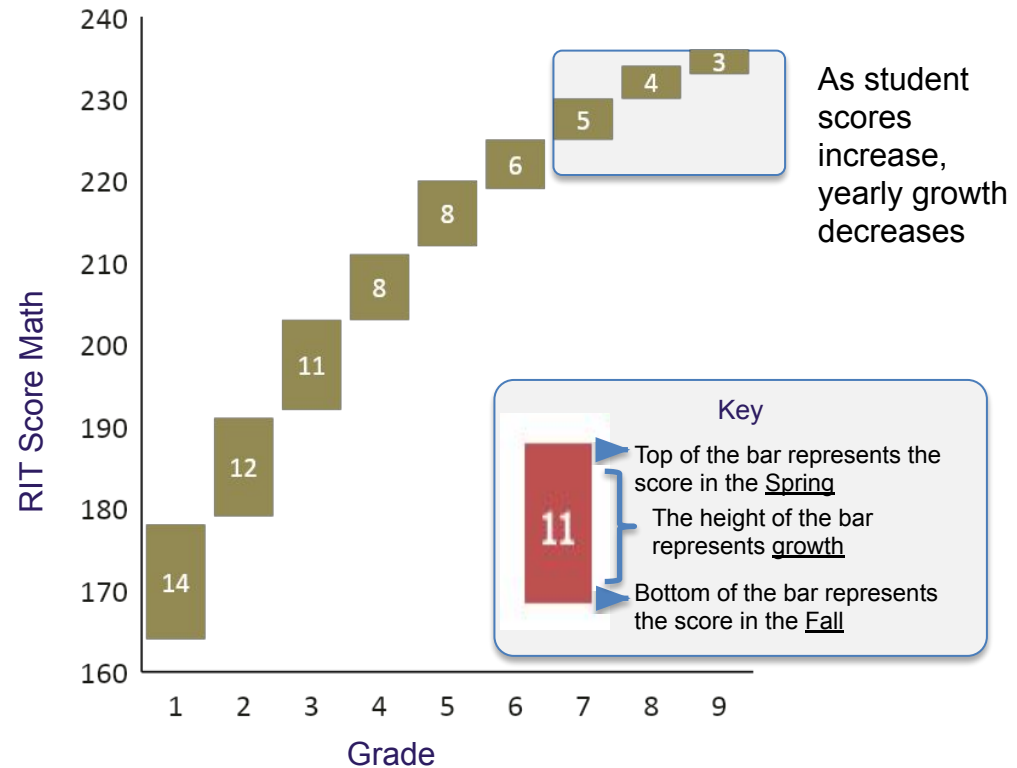
Background: NWEA MAP RIT scores allow districts to see student growth and achievement over time



National Average Reading RIT scores: Growth from Fall to Spring



National Average Math RIT scores Growth from Fall to Spring

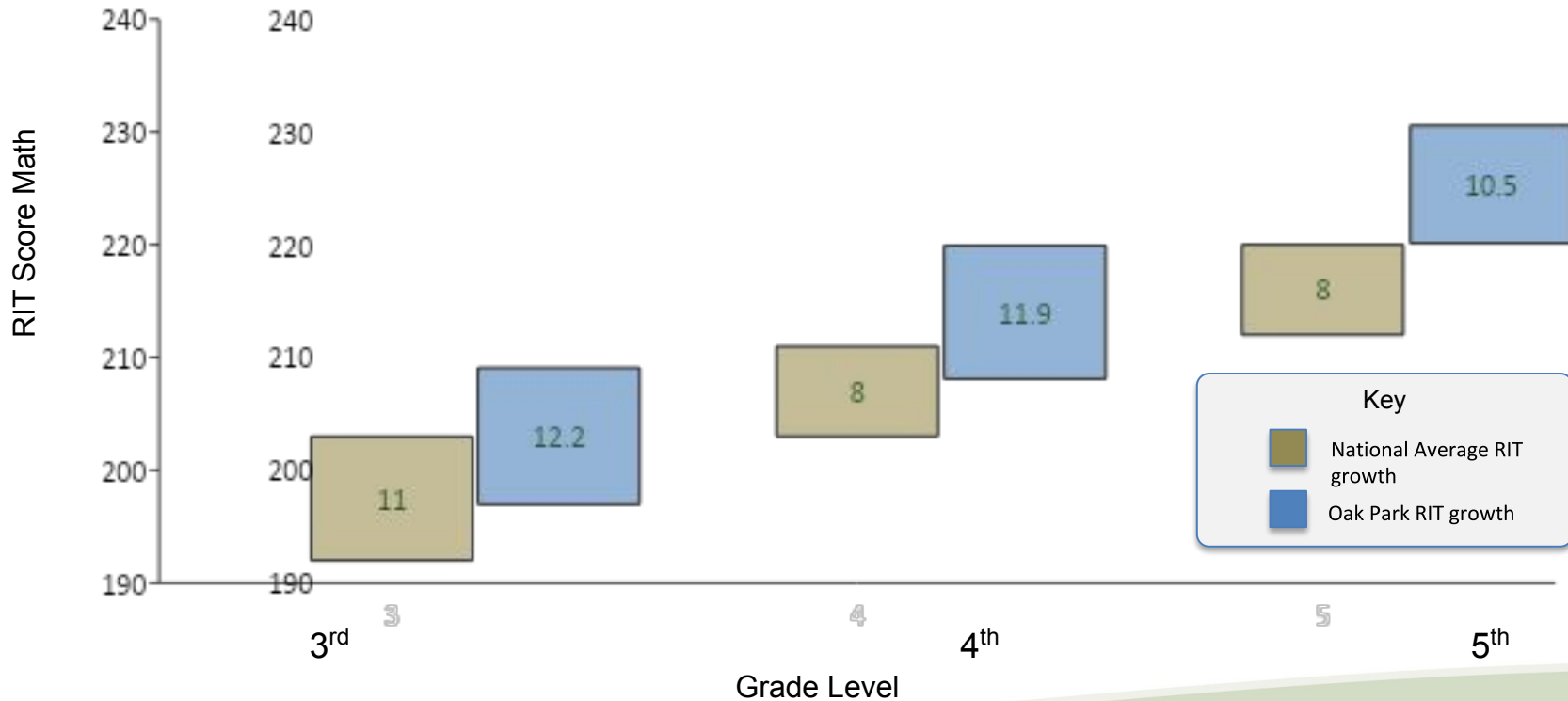


Source: US Average <https://mkpcpta.webs.com/MAP-Scores-FAQ.pdf>

Background: D97 has both higher Math RIT scores and higher levels of Math RIT growth than the national average

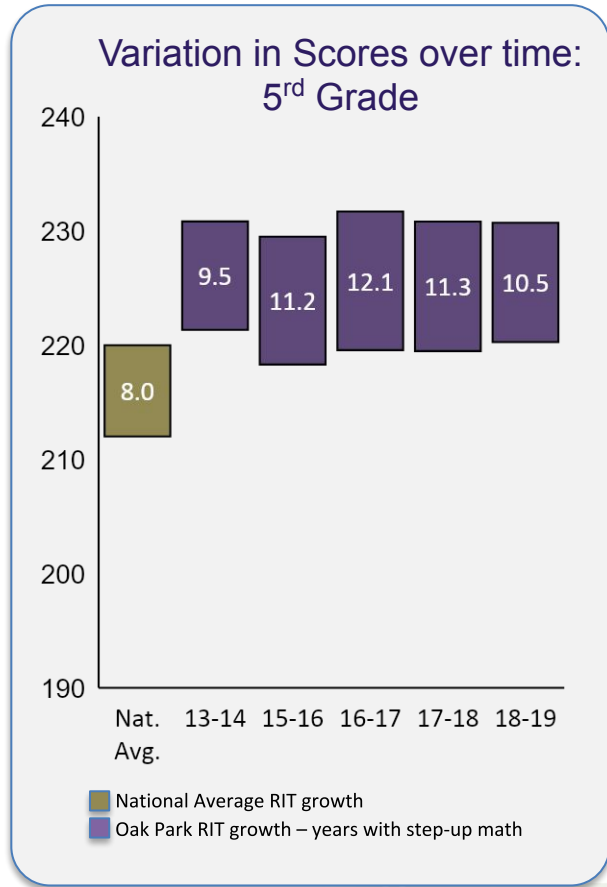
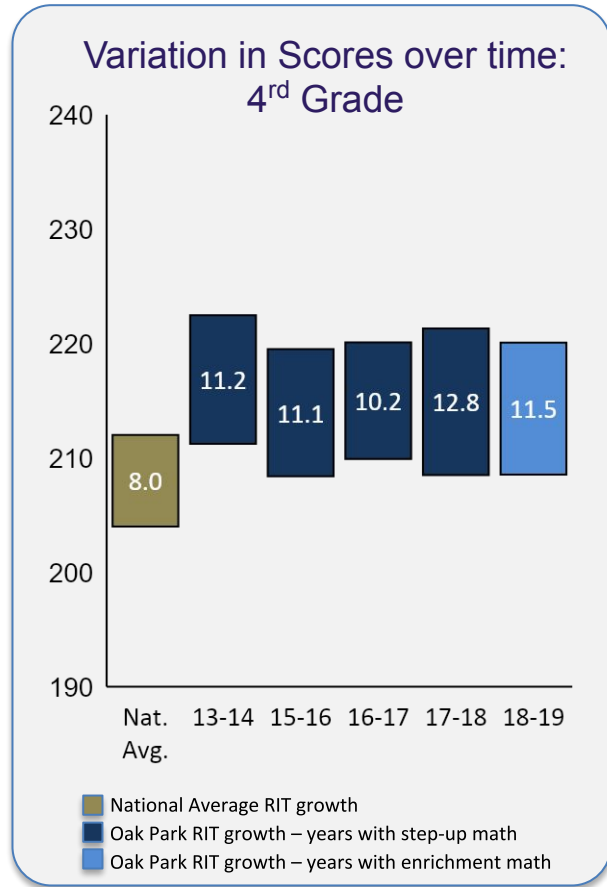
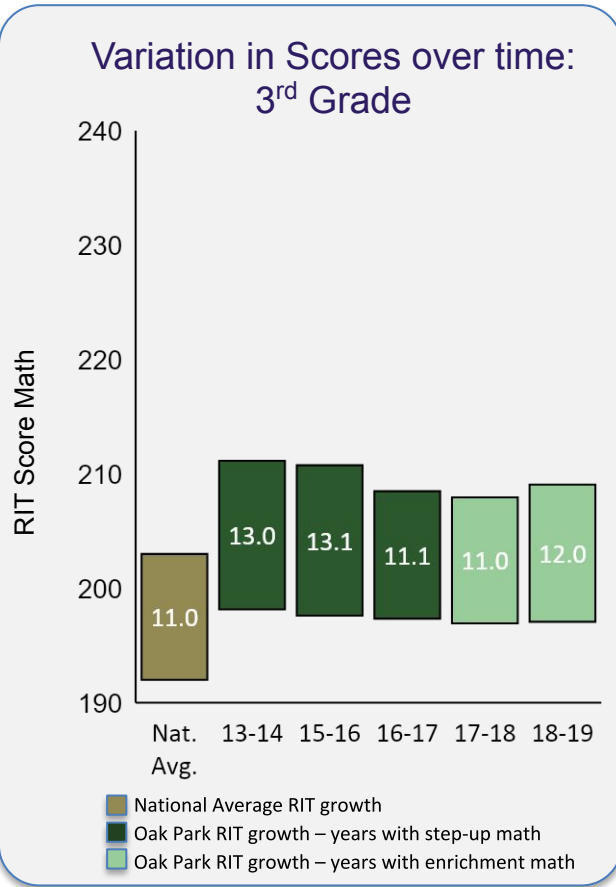


Math RIT scores: National Average vs. Oak Park for Grades 3, 4, and 5



Source: Oak Park and National RIT data from 2018-19

Background: Oak Park Math RIT scores and RIT score growth fluctuate from year to year, but are consistently above the national average

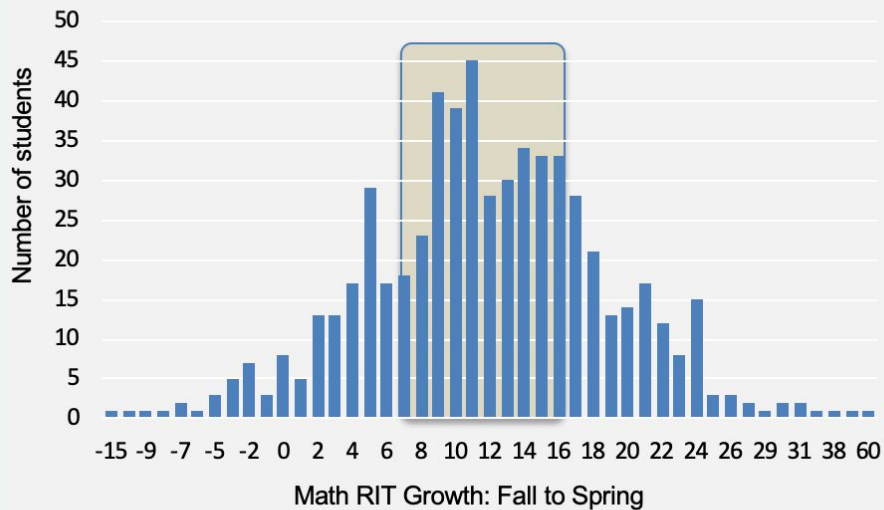


Background: For individual D97 students, there is a high degree of variation in how much growth on Math RIT scores is achieved during the year



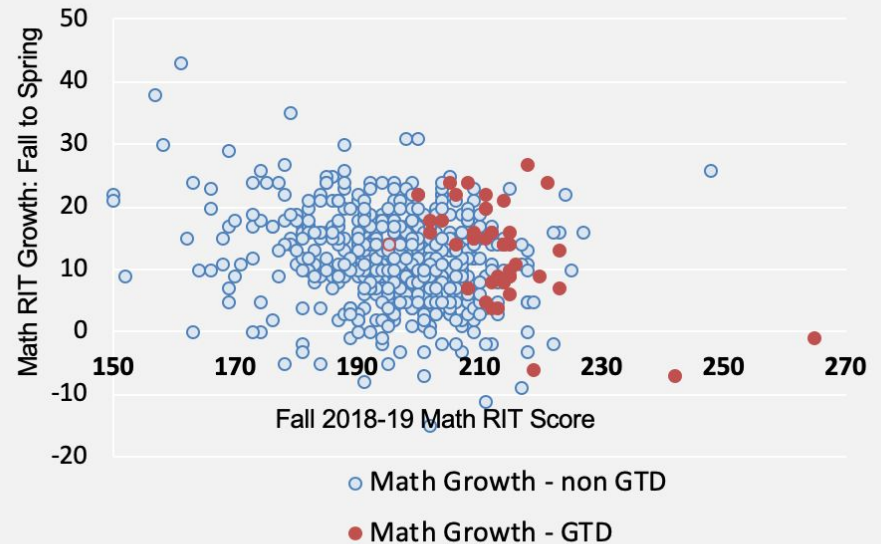
The middle 50% students to grow between 8 and 16 points per year in 3rd grade

3rd Grade Math RIT Fall to Spring Growth 18-19



As seen by the 2018-19 D97 3rd grade results, there is a high amount of variation between how much individual students grow during the year

Math RIT Growth:
3rd Grade 2018-19



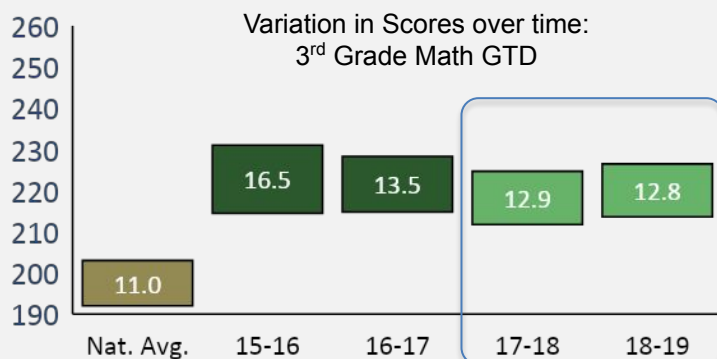
Source: Oak Park data from 2018-19



Changes in Math RIT Scores

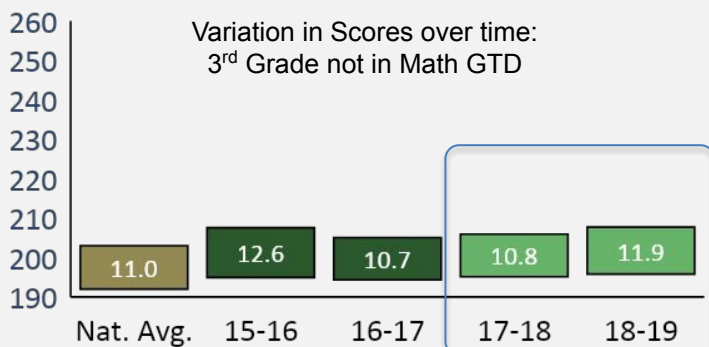
In 2017-18, Oak Park replaced step-up math with enrichment in 3rd grade: Math GTD students' growth was lower than the prior year, but the difference was not statistically significant

Results for Math GTD students when step-up math was replaced with enrichment in 2017-18:



- Math GTD student RIT score growth dropped compared the prior year
 - The drop in growth from 2016-17 to 2017-18 (the year when the change in the GTD step-up happened) was not statistically significant*
 - The drop in growth from 2015-16 to 2016-17 was statistically significant*
- Overall GTD Math performance levels were similar to prior years
- Math GTD students' Math RIT scores grew faster than other students in all years

Results for non Math GTD students when step-up math was replaced with enrichment in 2017-18:

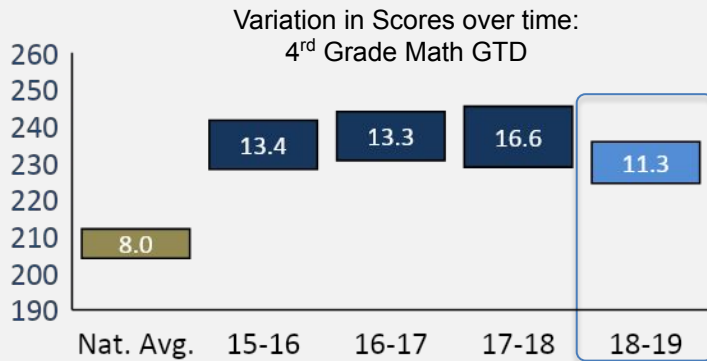


- Students not in the math GTD program saw similar levels of growth compared to prior years
- From 2017-18 to 2018-19 there has been an upward trend in student growth – the improvement from 17-18 to 18-19 was statistically significant*

In 2018-19, Oak Park ended step-up math in 4rd grade: Math GTD students grew less than in the prior year

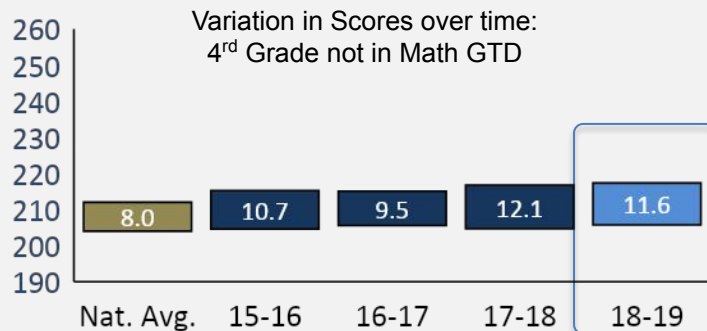


Results for Math GTD students when step-up math was replaced with enrichment in 2018-19



- Math GTD student RIT score growth dropped compared the prior years
 - This drop was statistically significant
 - However, the increase in scores from 2016-17 to 17-18 was also statistically significant
- Math GTD students' scores growth in 2018-19 was similar to D97 students not in the GTD program but higher than the national average

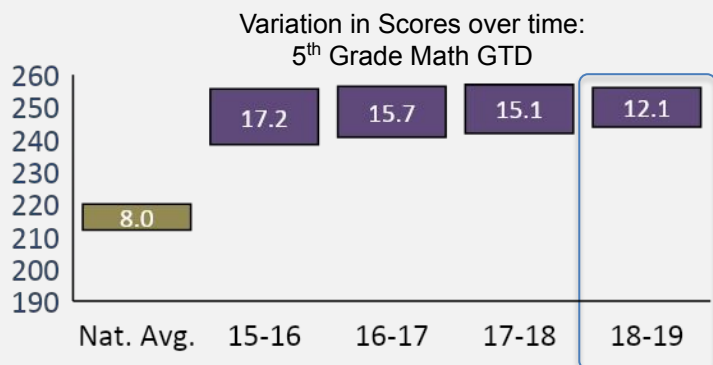
Results for non Math GTD students when step-up math was replaced with enrichment in 2018-19



- Students not in the Math GTD program saw similar levels of growth compared to prior years
- Math non-GTD students' scores growth was similar amount to the students in the GTD program and higher than the national average

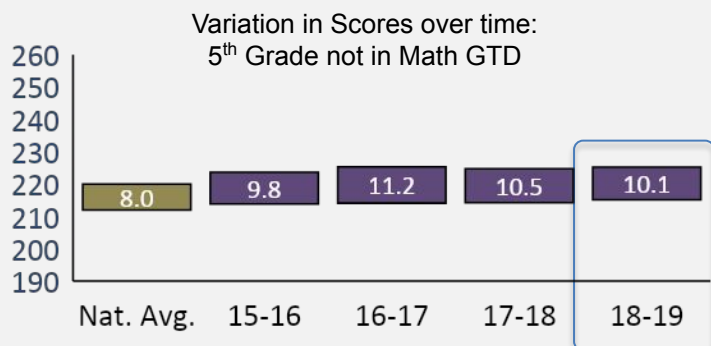
No changes were made to the 5th grade GTD program in 2018-19: Math GTD students growth-levels dropped while non-GTD math growth was consistent with prior years

Results for Math GTD students when step-up math was replaced with enrichment in 2018-19



- Math GTD student RIT score growth dropped compared the prior years
- Math GTD students' overall spring math RIT is similar to scores in prior years
- Math GTD students' overall growth was similar amount to the students not in the GTD program but 1.5x higher than the national average

Results for non Math GTD students when step-up math was replaced with enrichment in 2018-19



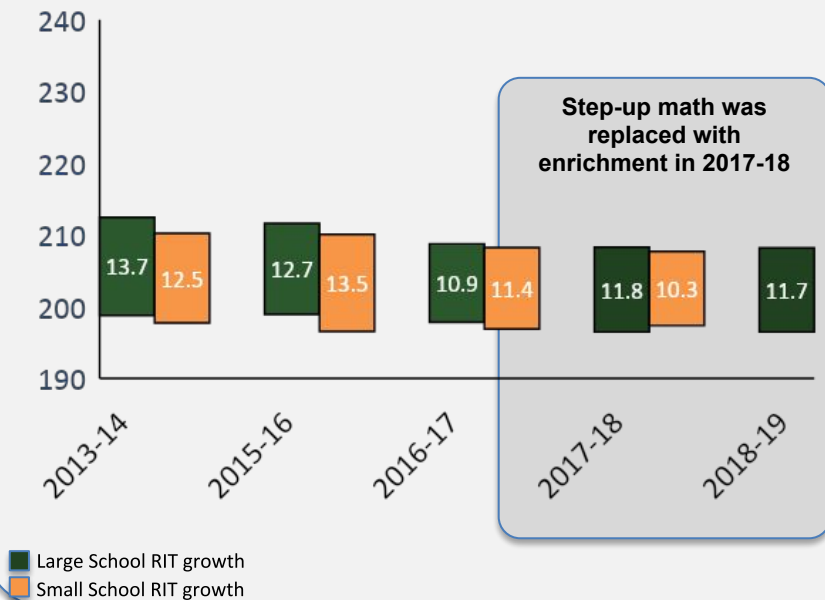
- Students not in the math GTD program saw similar levels of growth compared to prior years
- Math non-GTD students' scores growth was higher than the national average

As Oak Park transitioned from step-up math to enrichment, school size was not correlated with different rates of student growth

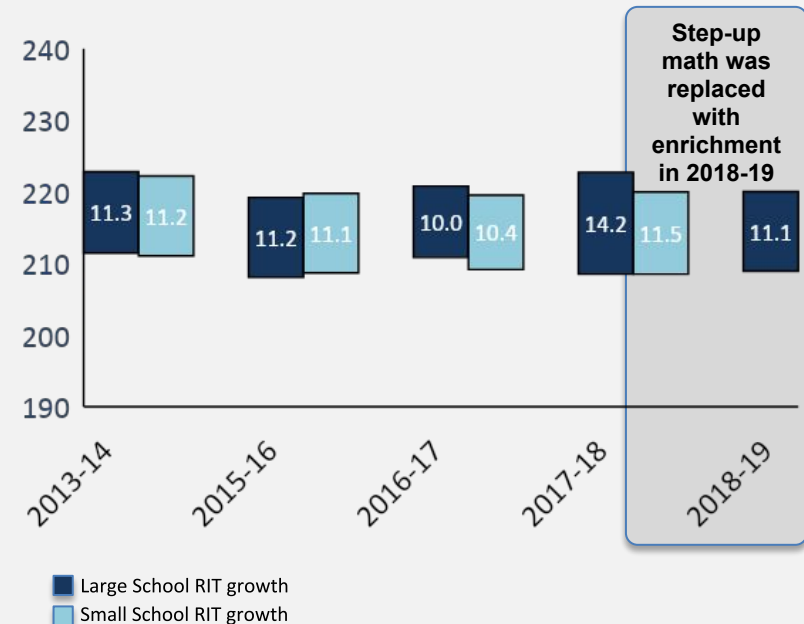


Overall, students who attended larger elementary schools saw similar levels of growth as students who attended smaller schools

Variation in Scores over time: 3rd Grade Math



Variation in Scores over time: 4th Grade Math



Source: Oak Park Data

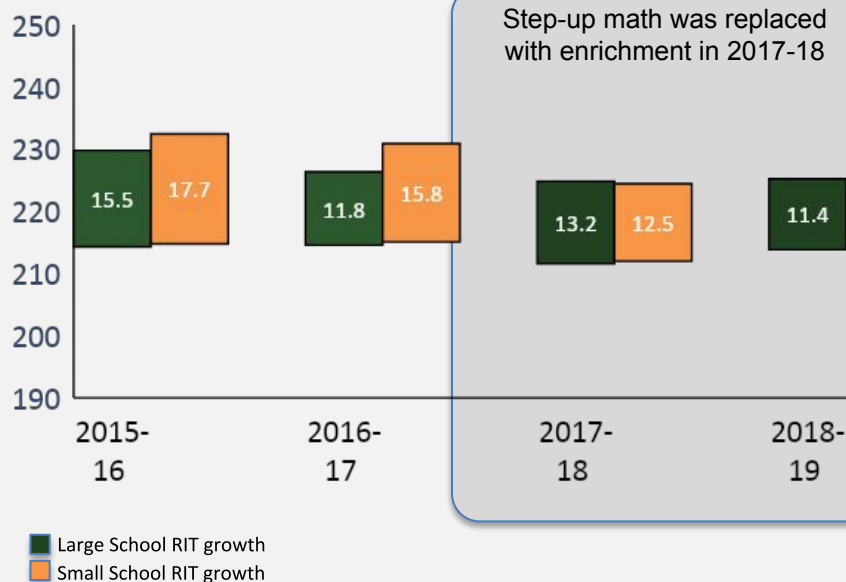
*Note: School size was determined by total enrollment, with schools of over 500 students being considered "large" and less than 500 being considered small. Holmes, Lincoln, Longfellow are considered large while Beye, Hatch, Horace Mann, Irving, and Whittier are considered small. Size data is from the IL State Report Card.

However, GTD math students in smaller schools experienced more growth than GTD students in larger schools in 2018-19

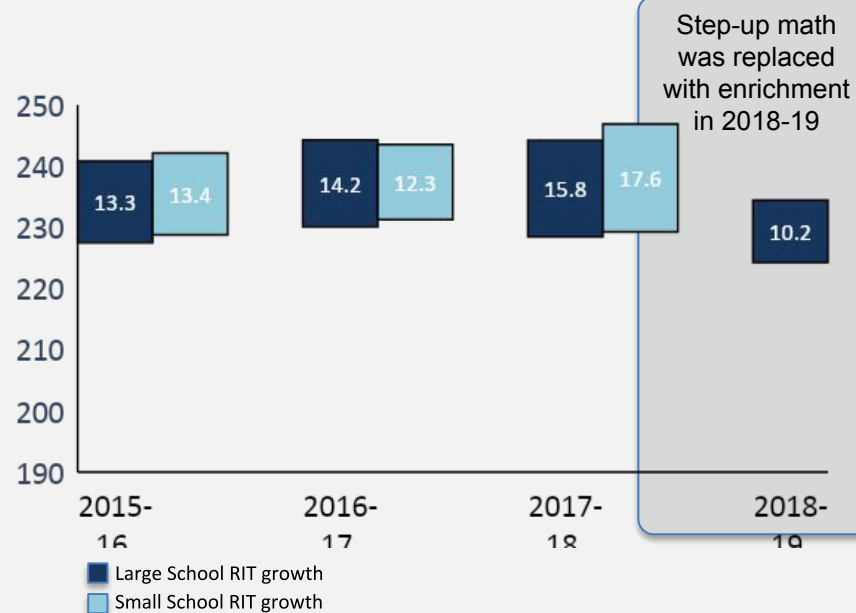


In 2018-19, Math GTD students who attended smaller elementary schools saw more growth than students who attended larger schools, but this was only statistically significant in 4th grade

**Variation in Scores over time:
3rd Grade Math**

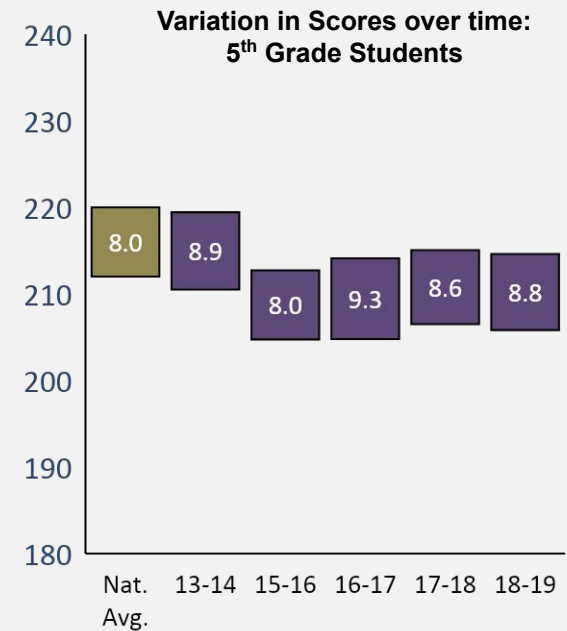
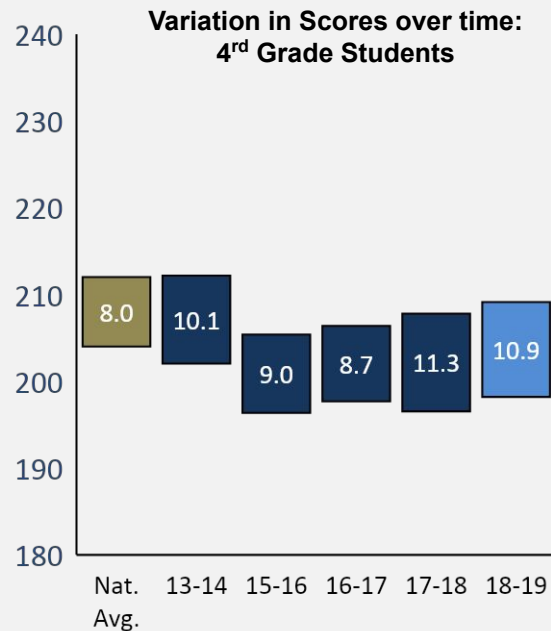
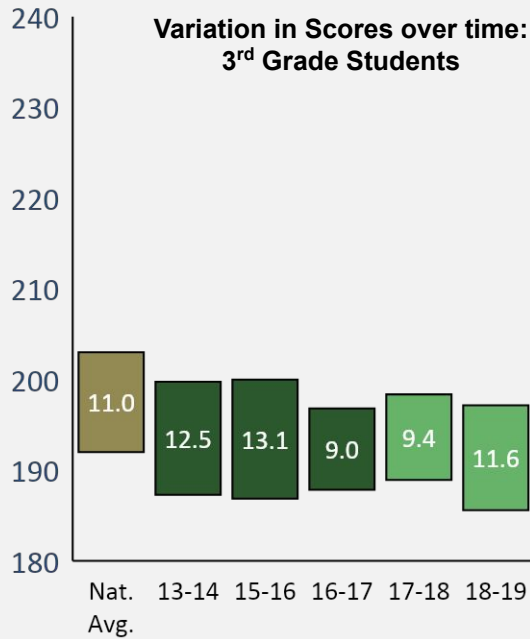


**Variation in Scores over time:
4th Grade Math**



Source: Oak Park Data

Low Income Students: Student Growth was similar in 2018-19 to in prior years

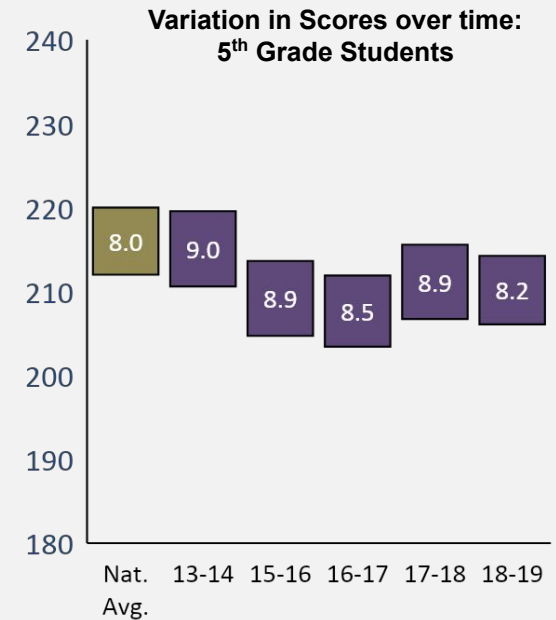
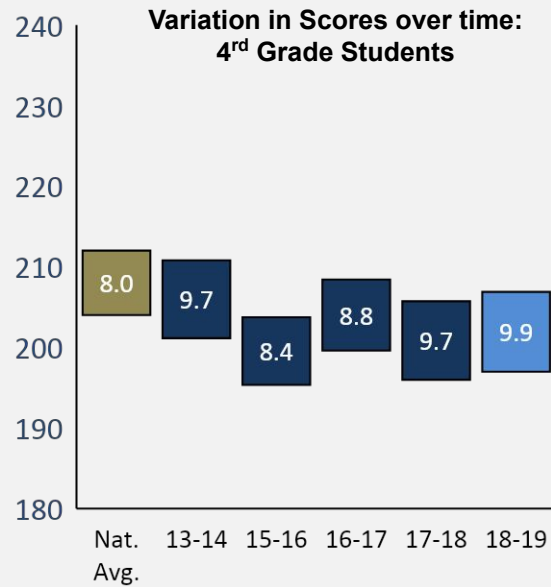
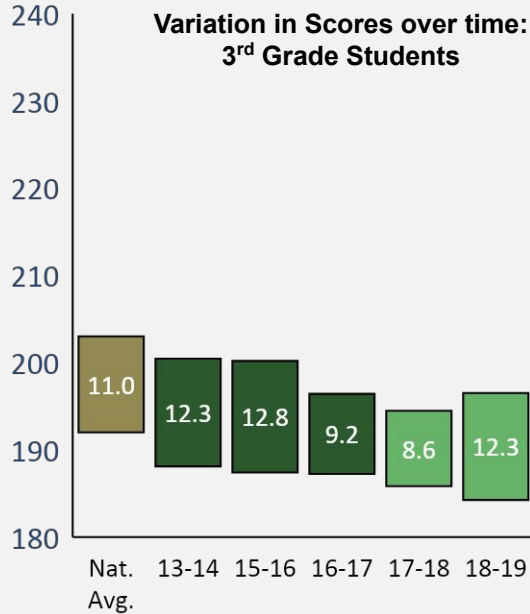


- In 3rd grade: Students with Low Income did grow more in 3rd grade in both 2017-18 and 2018-19 than in the prior year, but this growth was not statistically significant
- In 4th grade: Low Income student growth declined slightly in 2018-19, but this change was not statistically significant

African American Students: Math RIT growth increased in 2018-19 – in 3rd grade these changes were statistically significance



Results for African American students



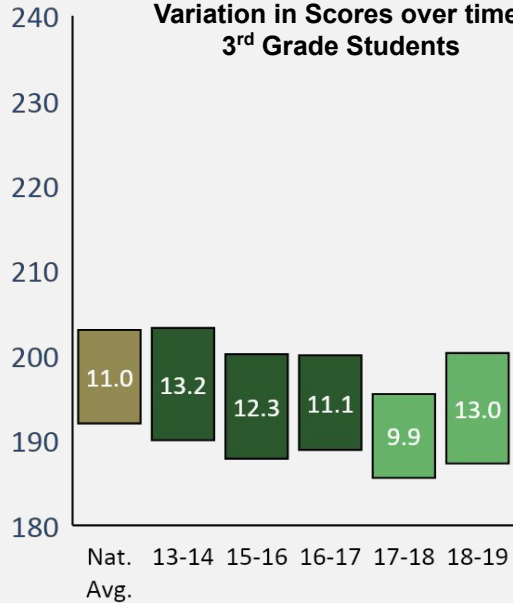
- African American grew more in 3rd grade in 2018-19 than in prior years, and this growth was statistically significant
- African American in 4th grade in 2018-19 grew slightly more than in the prior year, but this growth was not statistically significant

Students with IEPs: Math RIT growth increased in 2018-19, but these changes did not meet the significance threshold

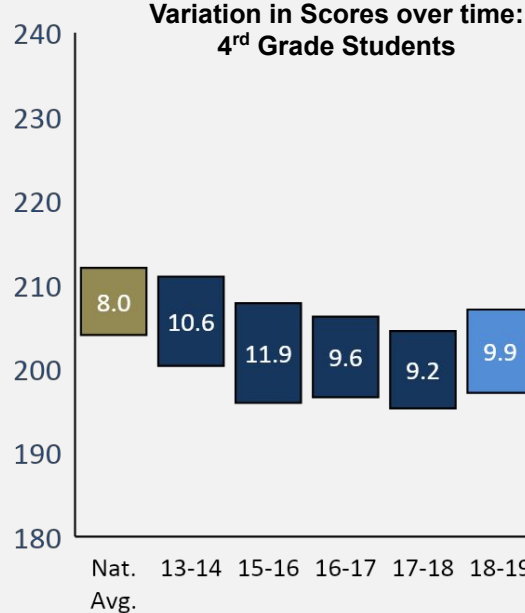


Results for students with IEPs

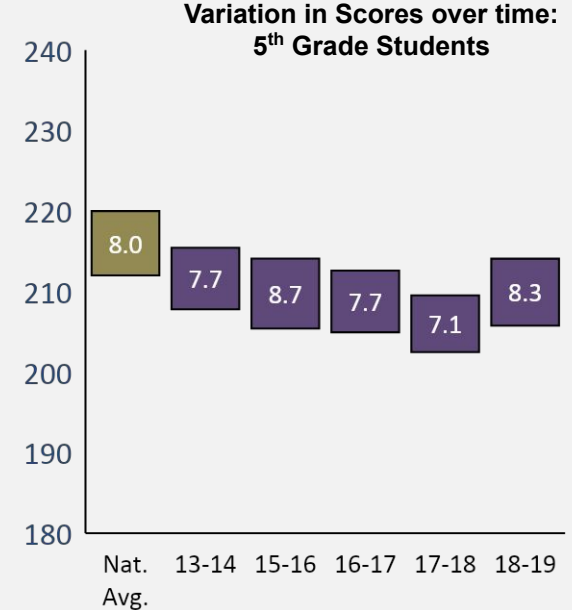
Variation in Scores over time:
3rd Grade Students



Variation in Scores over time:
4th Grade Students



Variation in Scores over time:
5th Grade Students



- Students with IEPs did grow more in 3rd grade in 2018-19 than in prior years, but this growth was not statistically significant
- Students with IEPs in 4th grade in 2018-19 grew slightly more than in the prior year, but this growth was not statistically significant



Next Steps/Recommendations



Recommendations and Next Steps:

- “Gifted education” (at the elementary level) should be taught to all students; continue math enrichment
- Focus on areas that students have strengths in and build their confidence by providing enriching experiences to them
- Continue use of K-5 mathematics program so students self-belief takes hold, and they will take on more challenging content as they move onto middle- and high-school



Recommendations and Next Steps:

- By SY22, reallocate D97 resources to provide a “push-in” enrichment for all model (versus allocating resources to provide pull-out support for students who don’t qualify for accelerated learning)
- Continue investments in staff’s understanding and use of differentiation (*via National Board, instructional coaching, push-in support staff, instructional technology*)
- Strengthen supports to implement IL Acceleration Placement Act
- Speak with students, teachers, and families to determine how to improve offerings of program



Thank you!