

Spring 2019 Mathematics Additional Timing Analysis

#### Presentation to the Illinois TAC



11 December 2019

# **Spring 2019 Mathematics**

- For spring 2019, some students in grades 3 8 are completing mathematics assessments at or beyond the allowed time per Unit.
- For some Units, the students at the 90-95<sup>th</sup> percentile in overall time spent on a Unit are at or exceeding the allowed time per Unit.
- In order to understand the students at or exceeding the allowed time per Unit, additional analyses evaluating demographics, performance, and time per item were conducted by parsing the students into four groups based on time spent on the overall assessment.



# **Spring 2019 Mathematics**

- The following analyses divided students into one of four percentile groups based on their percentile rank with respect to overall time on a Unit. The groups are not divided into equal sized groups.
  - Group 1: Students at the 0 75<sup>th</sup> Percentile
  - Group 2: Students at the 76<sup>th</sup> 87<sup>th</sup> Percentile
  - Group 3: Students at the 88<sup>th</sup> 92<sup>nd</sup> Percentile
  - Group 4: Students at the 93<sup>rd</sup> 99<sup>th</sup> Percentile
- Percentile Groups were derived within each Unit. Therefore, a student will have more than one percentile group designation due to assessments having multiple Units.



### **Percentile Rank Correlation across Units**

There is a moderate correlation between student's percentile ranks across Units which reflects student's overall time on each Unit relative to other students.

Grade	Number of Students	Unit 1 & Unit 2 Correlation	Unit 1 & Unit 3 Correlation	Unit 2 & Unit 3 Correlation
MAT03	80,018	0.671	0.617	0.728
MAT04	82,578	0.663	0.643	0.717
MAT05	89,220	0.698	0.625	0.699
MAT06	94,520	0.641	0.609	0.739
MAT07	95,049	0.672	0.647	0.747
MAT08	96,276	0.625	0.627	0.768



# **Timing Analyses**

- Analyses were conducted for each of the four groups:
  - 1. Summary of summative scale scores
  - 2. Demographic characteristics
  - Time spent on items by subclaim and item total score points
  - 4. Time spent on items in different sections of the assessment
  - 5. Omit rates for students

These results are provided in separate handouts.



## **Questions for the TAC**

• Does the TAC have feedback regarding the timing analyses?





# Pearson