## MEMORANDUM

March 13, 2019
TO: Shawn Joseph, Ed.D. Director of Schools

FROM: Paul Changas
Executive Director, Department of Research, Assessment \& Evaluation
RE: $\quad$ February MAP Results

Metropolitan Nashville Public Schools (MNPS) administered the Measures of Academic Progress (MAP) assessment in Reading and Mathematics in grades 2 through 9 in February, which was the third of three district-wide interim benchmark administrations for 2018-2019. An optional assessment is scheduled for May 6-17, following the administration of the state-mandated TNReady assessments.

## Overall Findings

Some of the key findings from the February 2019 MAP data are as follows:

- MNPS students scored below the national average for Reading and Mathematics at each grade level. The highest achievement scores occurred in Reading for grades 3 and 8, with our typical (median) student in these grades scoring at the $46^{\text {th }}$ national percentile.
- MNPS students have consistently performed better in Reading than in Math relative to students nationally, with a consistent gap of 7-8 points for the median national percentile.
- Longitudinal data continue to show that district MAP scores in both subjects tend to decline between February and August of the same calendar year, decline again slightly in November, and then improve by February of the next calendar year. The November decline is likely due to MNPS students having less instructional time before the winter test window than students nationally.
- Longitudinal achievement over the past two years was slightly higher in both Reading and Math for students who remained in the district and attempted all six MAP test administrations during that time.
- Recent February overall achievement, as measured by the median national percentile across grade levels, was slightly below to that of February 2018. Scores were one point lower in Reading and two points lower in Math than this time last year.
- While Reading achievement is down one-point in terms of median national percentile when compared to last year, the percent of students reaching the top two quintiles (Q4 and Q5) is identical and growth measures are up slightly.
- MAP growth scores from August to February were significantly above the national average for both Reading and Math.
- As was the case in November, academic growth since August was up in Reading and down in Math compared to the same time last school year. Reading growth scores were almost identical to

February 2018 growth when students who received text-to-speech and human reader test accommodations were excluded from the results.

- There continue to be tremendous differences between student subgroups in terms of Reading and Math achievement, but relatively small differences with respect to academic growth. Thus the achievement gaps remain persistent.


## Background

MAP is nationally normed and allows us to compare both the achievement and academic growth of our students to students across the country. It also provides teachers with information regarding students' instructional levels. In addition, MAP generates projections to TNReady English/Language Arts and Math assessments in grades 3-8 and projections to the ACT or SAT for students in grades 5-10.

This is the third year the MAP is being administered in MNPS. MAP-Reading was administered in grades 28 in January and February and in May of 2017. The Math assessment was added in August 2017. Both subjects were administered in grades 2-8 district-wide three times in 2017-2018, with an optional assessment in May 2018. Grade 9 was included in district-wide testing this school year. At grade 2 there are two different versions of MAP, and this school year the district switched from the grades K-2 version to the grades 2-5 version at the recommendation of the test publisher, NWEA.

## Universal Screening Process and Test Accommodations

As discussed in my January 2, 2019, memo summarizing November MAP results, the district recently began allowing text-to-speech and human reader test accommodations on MAP Reading. Accommodations were not previously allowed for Reading to comply with Tennessee Department of Education (TDOE) guidance stating that "Use of a universal screening assessment without accommodations is not only permissible, but necessary, to identify deficits that require intervention." However, because MAP also is used to identify students for academic magnet school eligibility, the TDOE notified MNPS in October that "... the use of assessments that preclude students from accessing magnet schools and other enrichment opportunities on account of their disability violates state and federal law." MNPS and TDOE staff met on October 29 and reached agreement on a new universal screening process in which students receiving text-to-speech and human reader accommodations would be identified as "at risk" and further screened with Formative Assessment System for Teachers (FAST), a skills-based assessment.

## Longitudinal Results

The two tables that follow present the district's longitudinal MAP results for Reading and Math, respectively. These results are for all students tested in the mandated grades. The median national percentile (NP) is shown by grade level and across grades for each district-wide test administration. The median national percentile indicates the percentage of students nationally at a particular grade level that scored below the typical MNPS student at that grade level. For example, looking at the first row and far-right column of the table below we see a median national percentile of 43 for our second graders on the most recent MAPReading assessment. That means that our typical second grader scored higher than 43 percent of second graders nationally. The typical or average U.S. student would be at the 50 th percentile.

## Reading

| Grade <br> Level |  |  |  |  |  |  |  |  |  | Jan <br> 2017 | May <br> 2017 | Aug <br> 2017 | Nov <br> 2017 | Feb <br> 2018 | Aug <br> $\mathbf{2 0 1 8}$ | Nov <br> $\mathbf{2 0 1 8}$ | Feb <br> 2019 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 39 | 38 | 45 | 42 | 47 | 30 | 37 | 43 |  |  |  |  |  |  |  |  |  |
|  | 43 | 38 | 36 | 37 | 41 | 40 | 42 | 46 |  |  |  |  |  |  |  |  |  |
| 4 | 43 | 37 | 41 | 38 | 44 | 39 | 41 | 44 |  |  |  |  |  |  |  |  |  |
| 5 | 40 | 32 | 39 | 34 | 39 | 40 | 37 | 38 |  |  |  |  |  |  |  |  |  |
| 6 | 39 | 32 | 38 | 35 | 40 | 41 | 35 | 40 |  |  |  |  |  |  |  |  |  |
| 7 | 42 | 37 | 42 | 41 | 44 | 42 | 39 | 44 |  |  |  |  |  |  |  |  |  |
| 8 | 45 | 40 | 45 | 46 | 52 | 45 | 43 | 46 |  |  |  |  |  |  |  |  |  |
| 9 | NA | NA | NA | NA | NA | 50 | 42 | 44 |  |  |  |  |  |  |  |  |  |
| $2-9$ | 42 | 37 | 41 | 39 | 44 | 40 | 39 | 43 |  |  |  |  |  |  |  |  |  |

The overall Reading scores across grade levels have fluctuated over time between the $37^{\text {th }}$ and $44^{\text {th }}$ percentile. The low point was in May 2017, which was likely at least partly due to test fatigue, as students in grades 3-8 took TNReady tests just before the MAP test window.

Across all grades, including the addition of ninth grade this fall, we saw a decline from February 2018 to August 2018 of four percentile points. A dramatic drop of 17 points occurred at grade 2, which was administered a different form of MAP this fall. Our August 2017 scores were highest at grade 2 for both subjects, so there is a possibility that scores were somewhat inflated due to the less challenging test version in use at that time. While the August 2018 median national percentile for second graders was only 30, those scores have risen significantly to a 37 in November and a 43 in February.

## Mathematics

| Grade <br> Level | Aug <br> 2017 |  |  |  |  |  |  | Nov <br> $\mathbf{2 0 1 7}$ | Feb <br> $\mathbf{2 0 1 8}$ | Aug <br> $\mathbf{2 0 1 8}$ | Nov <br> $\mathbf{2 0 1 8}$ | Feb <br> $\mathbf{2 0 1 9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 43 | 43 | 55 | 34 | 34 | 41 |  |  |  |  |  |  |
|  | 33 | 34 | 38 | 37 | 37 | 42 |  |  |  |  |  |  |
| 4 | 32 | 31 | 35 | 36 | 33 | 37 |  |  |  |  |  |  |
| 5 | 31 | 26 | 28 | 32 | 28 | 27 |  |  |  |  |  |  |
| 6 | 25 | 24 | 30 | 26 | 24 | 29 |  |  |  |  |  |  |
| 7 | 28 | 29 | 33 | 31 | 27 | 31 |  |  |  |  |  |  |
| 8 | 37 | 36 | 40 | 37 | 34 | 36 |  |  |  |  |  |  |
| 9 | NA | NA | NA | 35 | 34 | 34 |  |  |  |  |  |  |
| $2-9$ | 33 | 32 | 37 | 33 | 32 | 35 |  |  |  |  |  |  |

The MAP Mathematics assessment was not administered district-wide until the 2017-2018 school year. Median national percentile scores across grade levels have consistently fallen between the $32^{\text {nd }}$ and $37^{\text {th }}$ percentile. Thus when comparing Reading and Math median national percentiles, MNPS students are performing better in Reading than in Math relative to students nationally. Over the six MAP test administrations involving both subjects, there has been a consistent overall gap of 7-8 percentile points in favor of Reading.

As we saw with Reading, the change in test versions at grade 2 appears to have negatively impacted Math test scores thus far this year. While grade 2 was consistently the highest performing grade level in 20172018, the scores dropped drastically from February 2018 to August 2018. The median national percentile at grade 2 did not increase in November but rose seven points in February.

For both Reading and Math we have seen a consistent overall pattern of scores declining from January or February to August of the following school year. Summer loss is likely a factor in the decline. Scores tend to drop again slightly in November, as MNPS students have a few weeks less of instructional time than the students nationally to whom they are being compared. District scores relative to the nation, however, improve between November and the next test administration in January or February.

## Cohort Analysis

The above longitudinal results include all students tested in grades 2-9. To better understand the trends over the last two years, a separate analysis was conducted to include only those MNPS students that attempted MAP each of the six times it was administered district-wide in 2017-18 and 2018-19. The Reading and Math tables that follow show the number of students in each cohort with complete data for that subject, the cohort mean RIT scale score and median national percentile for each test administration, and the median growth national percentile from August to February for 2017-18 and for 2018-19.

Each row represents one cohort, with the 2018-19 grade level shown in the first column. For example, students that were in grade 2 in 2018-19 would have been in grade 1 in 2017-18. The small number tested both years for the cohort shown in the first row is due to the fact that testing is not mandated in grade 1. These students were in schools that chose to assess grade 1 at their own expense in 2017-18.

Reading

| $\begin{aligned} & 2018- \\ & 2019 \end{aligned}$ |  | Mean RIT Score |  |  |  |  |  | Median National Percentile |  |  |  |  |  | Aug-Feb Growth NP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grade Level | All 6 <br> Times | $\begin{aligned} & \text { Aug } \\ & \text { 2017 } \end{aligned}$ | $\begin{aligned} & \hline \text { Nov } \\ & 2017 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Aug } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Nov } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \end{aligned}$ | $\overline{\text { Aug }}$ | $\begin{aligned} & \hline \text { Nov } \\ & 2017 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Aug } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Nov } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 2017- \\ 2018 \end{array}$ | $\begin{array}{\|l\|} \hline 2018- \\ 2019 \end{array}$ |
| 2 | 598 | 155.7 | 164.4 | 172.1 | 169.6 | 179.4 | 186.3 | 35 | 35 | 48 | 37 | 44 | 54 | 66 | 69 |
| 3 | 4,815 | 172.3 | 179.0 | 184.5 | 183.0 | 191.0 | 195.1 | 45 | 42 | 50 | 42 | 44 | 49 | 54 | 59 |
| 4 | 4,847 | 181.9 | 187.7 | 191.9 | 192.3 | 198.7 | 202.1 | 38 | 37 | 44 | 42 | 43 | 46 | 53 | 62 |
| 5 | 3,602 | 193.7 | 197.7 | 201.0 | 200.4 | 203.7 | 206.5 | 46 | 43 | 47 | 42 | 39 | 43 | 53 | 50 |
| 6 | 3,353 | 200.5 | 202.6 | 205.8 | 206.1 | 208.4 | 211.1 | 44 | 39 | 44 | 43 | 40 | 45 | 49 | 51 |
| 7 | 3,085 | 205.4 | 206.8 | 210.1 | 210.6 | 212.5 | 215.0 | 43 | 38 | 43 | 47 | 44 | 49 | 53 | 55 |
| 8 | 3,014 | 210.4 | 212.7 | 215.0 | 215.2 | 217.2 | 219.1 | 47 | 46 | 50 | 50 | 51 | 54 | 58 | 59 |
| 9 | 2,209 | 216.8 | 218.0 | 220.7 | 219.8 | 219.1 | 221.1 | 55 | 53 | 57 | 52 | 50 | 54 | 61 | 53 |
| 2-9 | 25,523 | 192.8 | 196.8 | 200.6 | 200.3 | 204.4 | 207.4 | 44 | 42 | 47 | 45 | 44 | 49 | 54 | 56 |

## Mathematics

|  |  | Mean RIT Score |  |  |  |  |  | Median National Percentile |  |  |  |  |  | Aug-Feb Growth NP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grade Level | All 6 Times | $\begin{aligned} & \hline \text { Aug } \\ & 2017 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Nov } \\ & 2017 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Aug } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Nov } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Aug } \\ & 2017 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Nov } \\ & 2017 \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Aug } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Nov } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Feb } \\ 2019 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 2017- \\ 2018 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 2018- \\ 2019 \\ \hline \end{array}$ |
| 2 | 584 | 155.3 | 165.2 | 174.2 | 171.2 | 179.4 | 185.9 | 33 | 34 | 53 | 42 | 37 | 47 | 76 | 60 |
| 3 | 4,789 | 173.5 | 181.9 | 188.7 | 183.9 | 192.4 | 196.8 | 43 | 43 | 58 | 40 | 40 | 45 | 71 | 65 |
| 4 | 4,886 | 182.7 | 190.3 | 194.3 | 195.2 | 200.5 | 204.9 | 35 | 37 | 41 | 38 | 36 | 39 | 62 | 53 |
| 5 | 3,645 | 195.0 | 199.2 | 203.1 | 203.6 | 206.8 | 210.3 | 34 | 31 | 35 | 35 | 30 | 32 | 47 | 44 |
| 6 | 3,355 | 203.7 | 206.5 | 209.9 | 208.0 | 210.9 | 214.6 | 34 | 30 | 33 | 30 | 29 | 33 | 43 | 53 |
| 7 | 3,169 | 207.5 | 210.2 | 213.7 | 214.2 | 216.8 | 219.6 | 30 | 29 | 32 | 33 | 33 | 35 | 56 | 55 |
| 8 | 2,973 | 213.8 | 216.6 | 220.0 | 220.5 | 222.9 | 225.3 | 35 | 33 | 37 | 41 | 40 | 42 | 63 | 56 |
| 9 | 2,144 | 221.0 | 223.4 | 226.6 | 225.7 | 226.7 | 228.3 | 41 | 40 | 45 | 41 | 38 | 40 | 62 | 51 |
| 2-9 | 25,545 | 194.8 | 199.9 | 204.2 | 203.3 | 207.6 | 211.2 | 36 | 35 | 40 | 37 | 36 | 39 | 59 | 54 |

The RIT scale scores are on a longitudinal scale and should increase over time as student achievement increases. We see declines or flat RIT scores between February 2018 and August 2018 in multiple grades for both subjects, which indicates that student achievement is stagnant or declining during these months. This is further evidence that summer loss is an issue, but also raises questions about the impact of spring testing on instructional practice and student achievement.

The median national percentiles for the most recent February 2019 assessment were higher for these cohorts at every grade level in both subjects than we saw in the previous tables, which included all students tested. The scores going back to August 2017 also tended to be slightly higher for these cohorts.

The overall median national percentile in Reading across grades 2-9 for these cohorts improved by five percentile points (from 44 to 49) between August 2017 and February 2019, while the previous results for all students tested showed only a two-point percentile increase during this time (from 41 to 43 ). In Math the cohort median national percentile from August 2017 to February 2019 increased by three points (from 36 to 39 ), which was slightly more than the two-point increase (from 33 to 35 ) for all students tested.

The August to February growth national percentiles for the cohorts did not exceed the overall growth results, but the cohorts had a smaller loss between February and August. The higher achievement scores and apparent smaller summer loss may be partly explained by the greater stability of the cohorts, as student mobility tends to negatively impact achievement.

## Detailed Results for All Students Tested in Grades 2-9

The table below shows the number of students in each of grades 2-9 that were assessed MAP-Reading in August and February. These numbers are followed by the median (middle) national percentile for each test administration and each grade level. The median national percentile indicates the percentage of students nationally that scored below the typical MNPS student. The last two columns of the table are measures of academic growth between August and February. The next-to-last column shows the growth national percentile for students that attempted both of these assessments. The growth percentile is the percentage of students nationally that made less academic growth or progress from fall to winter than the typical MNPS student. For example, the first row in this table shows that the typical MNPS second grader made more growth in Reading than 66 percent of students nationally. The last column provides the percentage of MNPS students that met or exceeded their growth projection on the February assessment. The February growth projection for each student is based upon the average growth made nationally during this period of time by students that had similar fall achievement scores. The national average for both the median growth percentile and the percent of students meeting projections is 50 .

## Reading

| Grade Level | Number Tested |  | Median NP |  | Aug-Feb Growth |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Aug } \\ & 2018 \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \end{aligned}$ | $\begin{aligned} & \text { Aug } \\ & 2018 \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | Median Growth NP | \% Meeting Projections |
| 2 | 5,885 | 5,983 | 30 | 43 | 66 | 64.7\% |
| 3 | 5,875 | 5,965 | 40 | 46 | 59 | 59.4\% |
| 4 | 5,830 | 5,922 | 39 | 44 | 62 | 61.5\% |
| 5 | 4,491 | 4,690 | 40 | 38 | 50 | 52.4\% |
| 6 | 4,476 | 4,645 | 41 | 40 | 51 | 54.1\% |
| 7 | 4,251 | 4,426 | 42 | 44 | 54 | 55.3\% |
| 8 | 4,202 | 4,359 | 45 | 46 | 59 | 59.0\% |
| 9 | 3,716 | 3,803 | 50 | 44 | 51 | 49.3\% |
| 2-9 | 38,726 | 39,793 | 40 | 43 | 57 | 57.7\% |

The national percentile longitudinal achievement trends were discussed earlier. Although achievement in February was below the national average ( $50^{\text {th }}$ percentile) at each grade level, the median national
percentile across grades 2-9 improved by three points from August to February. As previously referenced, grade 2 scores have increased by 13 percentile points since August. Grades 3 and 4 have also risen by at least five percentile points since August, while grade 9 dropped by six points. Across grades 2-9, the district's median national percentile has increased by three points, from 40 to 43 .

The median growth national percentile indicates that the reading progress students made between August and February was at or above the average growth shown nationally ( $50^{\text {th }}$ percentile) at every grade level. As stated previously, MNPS students had a few weeks less of instructional time between assessments than did students nationally. In addition, the majority of MNPS students met or exceeded their growth expectations in all but grade 9. Nearly two-thirds of second graders (64.7\%) met growth expectations and $57.7 \%$ of all students in grades 2-9 met or exceeded targets. The only grade level falling short of the national average was grade nine, which was just below the $50^{\text {th }}$ percentile.

One factor that may have positively impacted growth scores was the change in district policy that allowed text-to-speech and human reader accommodations after the August Reading test administration. The Reading data was re-analyzed with students identified as receiving this accommodation excluded. These results will be provided in more detail in the following section regarding subgroup performance, but the reanalyzed overall growth results across grades 2-9 showed a small decline. The median national percentile for growth declined from 57 to 54 with students receiving read aloud accommodations removed. The percent of students across grades meeting or exceeding growth projections declined from $57.7 \%$ to $55.4 \%$ with the removal of read aloud students. Even with these students excluded, district Reading growth exceeded the national average.

The table below shows detailed results for Mathematics in the same format.

## Mathematics

| Grade Level | Number Tested |  | Median NP |  | Aug-Feb Growth |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Aug } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \end{aligned}$ | $\begin{aligned} & \text { Aug } \\ & 2018 \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \end{aligned}$ | Median Growth NP | \% Meeting Projections |
| 2 | 5,893 | 5,978 | 34 | 41 | 59 | 60.9\% |
| 3 | 5,899 | 5,961 | 37 | 42 | 65 | 65.9\% |
| 4 | 5,868 | 5,916 | 36 | 37 | 53 | 55.6\% |
| 5 | 4,567 | 4,677 | 32 | 27 | 43 | 46.0\% |
| 6 | 4,513 | 4,660 | 26 | 29 | 52 | 55.2\% |
| 7 | 4,339 | 4,469 | 31 | 31 | 55 | 57.3\% |
| 8 | 4,277 | 4,336 | 37 | 36 | 55 | 57.3\% |
| 9 | 3,704 | 3,850 | 35 | 34 | 51 | 53.9\% |
| 2-9 | 39,060 | 39,847 | 33 | 35 | 55 | 57.1\% |

In addition to the previously referenced seven-point increase at grade 2 since August, the median national percentile increased by five points at grade 3 and three points at grade 6 between August and February. Grade 5, however, declined by five points during this time. Across grades 2-9 there has been a two-percentile-point increase since August.

The academic growth of the typical third grader from August to February exceeded that of almost two-thirds of third graders nationally, as indicated by the growth national percentile of 65 . All grade levels except for grade 5 exceeded the national average for the median growth national percentile and the percent of students meeting or exceeding projections. Almost two-thirds of third graders met or exceeded their growth targets.

The next two tables compare recent February 2019 MAP achievement and academic growth with results from this time last year (February 2018). Reading results are presented first, followed by Math results.

## Reading

| Grade <br> Level | Number Tested |  | Achievement |  |  |  | August-February Growth |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Median NP |  | \% in Q4-Q5 |  | Growth NP |  | \% Met Projections |  |
|  | $\begin{aligned} & \hline \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2019 \end{aligned}$ | $\begin{aligned} & \hline \mathrm{Feb} \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{Feb} \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2019 \end{aligned}$ |
| 2 | 6,067 | 5,983 | 47 | 43 | 37.8\% | 35.9\% | 54 | 66 | 56.3\% | 64.7\% |
| 3 | 5,991 | 5,965 | 41 | 46 | 32.4\% | 34.8\% | 53 | 59 | 54.9\% | 59.4\% |
| 4 | 6,441 | 5,922 | 44 | 44 | 33.5\% | 33.9\% | 54 | 62 | 56.0\% | 61.5\% |
| 5 | 4,649 | 4,690 | 39 | 38 | 29.9\% | 31.8\% | 48 | 50 | 51.4\% | 52.4\% |
| 6 | 4,447 | 4,645 | 40 | 40 | 31.8\% | 31.4\% | 54 | 51 | 55.4\% | 54.1\% |
| 7 | 4,359 | 4,426 | 44 | 44 | 34.1\% | 31.9\% | 58 | 54 | 58.3\% | 55.3\% |
| 8 | 4,282 | 4,359 | 52 | 46 | 39.7\% | 37.6\% | 60 | 59 | 59.5\% | 59.0\% |
| 9 | NA | 3,803 | NA | 44 | NA | 36.1\% | NA | 51 | NA | 49.3\% |
| All | 36,236 | 39,793 | 44 | 43 | 34.2\% | 34.2\% | 54 | 57 | 55.9\% | 57.7\% |

These results show that while achievement is down one-point in terms of median national percentile when compared to last year, the percent of students reaching the top two quintiles (Q4 and Q5) is identical and growth measures are up slightly. However, as discussed earlier, the median NP is 54 and the percent of students reaching projections is $55.4 \%$ when students receiving text-to-speech and read aloud accommodations are removed. These numbers are still significantly above the national average and almost identical to the February 2018 data.

## Mathematics

| Grade Level | Number Tested |  | Achievement |  |  |  | August-February Growth |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Median NP |  | \% in Q4-Q5 |  | Growth NP |  | \% Met Projections |  |
|  | $\begin{aligned} & \text { Feb } \\ & 2018 \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2018 \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { Feb } \\ & 2018 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2018 \end{aligned}$ | $\begin{aligned} & \text { Feb } \\ & 2019 \\ & \hline \end{aligned}$ |
| 2 | 6,055 | 5,978 | 55 | 41 | 46.5\% | 28.9\% | 71 | 59 | 68.9\% | 60.9\% |
| 3 | 5,992 | 5,961 | 38 | 42 | 29.4\% | 29.6\% | 62 | 65 | 62.6\% | 65.9\% |
| 4 | 6,449 | 5,916 | 35 | 37 | 23.3\% | 27.4\% | 49 | 53 | 52.3\% | 55.6\% |
| 5 | 4,649 | 4,677 | 28 | 27 | 20.5\% | 22.9\% | 43 | 43 | 47.2\% | 46.0\% |
| 6 | 4,460 | 4,660 | 30 | 29 | 20.7\% | 19.1\% | 55 | 52 | 57.2\% | 55.2\% |
| 7 | 4,278 | 4,469 | 33 | 31 | 24.6\% | 22.7\% | 63 | 55 | 62.8\% | 57.3\% |
| 8 | 4,265 | 4,336 | 40 | 36 | 32.1\% | 28.1\% | 62 | 55 | 64.3\% | 57.3\% |
| 9 | NA | 3,850 | NA | 34 | NA | 28.6\% | NA | 51 | NA | 53.9\% |
| All | 36,148 | 39,847 | 37 | 35 | 28.7\% | 26.1\% | 58 | 55 | 59.4\% | 57.1\% |

The above table shows that Math achievement and growth are down a little from February 2018 but growth continues to be well above the national average. Across grades 2-9 the median national percentile, percent of students reaching Q4 and Q5, median growth national percentile, and percent of students meeting growth projections are all down between two and three points. Much of the decline can be traced to a large drop in scores at grade 2, the grade in which a different test version was administered. Given the extremely high scores observed in February 2018 at grade 2, it is possible that the previous test version provided somewhat inflated scores last year.

The two graphs that follow show the percentage of MNPS students in grades 2-9 that scored in each national quintile on the August and February administrations of the MAP Reading and Math assessments. Quintiles break up a group of students into five equal groups - meaning that 20 percent of students nationally fall into each quintile. A red line in the graph indicates the national average (20\%) for each quintile. The August results are shown with gold bars and the February results with blue bars.

Reading


As we see in this graph, there are more MNPS students in the low achievement range than we would expect to find nationally - $32.9 \%$ in August and $29.3 \%$ in February, compared to $20 \%$ nationally. District numbers are a little lower than the national average in the other four quintile groups, although they are within a few percentage points of the nation in each case. As we saw with national percentile results, reading achievement relative to the nation improved slightly from August to February, including a $3.6 \%$ reduction of students in the lowest quintile (Q1).

Mathematics


As with Reading, there are more MNPS students in the low achievement range for Math than the $20 \%$ we would find nationally. There are also slightly more than $20 \%$ in the low average range (quintile 2), and the Math results overall are below the Reading results. The percent of students scoring in the top quintile, $10.2 \%$ in August and $10.9 \%$ in February is only about half of the national rate. Slight improvement is observed between August and February.

## Student Subgroup Results

The table that follows shows the median national percentile for the February Reading test and the percentage of MNPS students in quintiles 4 and 5, by student subgroup. The percentage of students in quintile 4 (Q4) and quintile 5 (Q5) is one of the Key Performance Indicators (KPIs) for schools, with the goal to increase these numbers significantly over the course of the school year. Nationally $40 \%$ of students would score in these top two quintiles. The last two columns of the table show two measures of the academic growth that occurred between August and February, by subgroup. The median growth national percentile and the percent of students meeting or exceeding their growth projection during this time are provided. As stated previously, the national average is 50 for both of these growth measures. The percent of students meeting or exceeding projections is also a school-level KPI, with the goal to reach $60 \%$.

## Reading

| Subgroup | February 2019 Achievement |  |  | August 2018 to February 2019 Academic Growth |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number Tested | $\begin{gathered} \text { Median } \\ \mathrm{NP} \end{gathered}$ | $\begin{aligned} & \hline \% \text { in } \\ & \text { Q4-Q5 } \end{aligned}$ | \# Tested <br> Aug \& Feb | Median Growth NP | \% Meeting Projection |
| All Students | 39,793 | 43 | 34.2\% | 35,988 | 57 | 57.7\% |
| Asian | 1,637 | 59 | 47.2\% | 1,537 | 59 | 62.3\% |
| Black | 15,045 | 34 | 24.4\% | 13,615 | 50 | 52.6\% |
| Hawaiian/Pacific Islander | 30 | 53 | 40.0\% | 29 | 77 | 65.5\% |
| Hispanic | 10,289 | 31 | 21.9\% | 8,985 | 62 | 60.8\% |
| Native American | 53 | 43 | 43.4\% | 46 | 47 | 50.0\% |
| White | 11,782 | 66 | 55.0\% | 10,933 | 61 | 61.0\% |
| Multi-ethnic | 957 | 52 | 41.0\% | 843 | 58 | 58.1\% |
| Econ Disadvantaged (ED) | 17,123 | 30 | 20.1\% | 15,170 | 55 | 55.8\% |
| Non-ED | 22,670 | 55 | 44.9\% | 20,818 | 58 | 59.2\% |
| English Learners (EL) | 7,183 | 13 | 7.0\% | 5,874 | 71 | 65.3\% |
| Non-EL | 32,610 | 51 | 40.2\% | 30,114 | 55 | 56.3\% |
| Students with Disabilities (SWD) | 4,720 | 13 | 12.7\% | 4,212 | 59 | 57.5\% |
| Non-SWD | 35,073 | 47 | 37.1\% | 31,776 | 57 | 57.8\% |

As the above results show, we continue to see tremendous differences between subgroups in Reading achievement but relatively small differences with respect to academic growth. These differences can be seen more clearly when the results are shown graphically. The two graphs that follow present the above Reading achievement results (median national percentile) and the results for academic growth (median growth national percentile).


We see in the above graph that English Learners and Students with Disabilities were at just the $13^{\text {th }}$ percentile for achievement and fell well below the national average ( $50^{\text {th }}$ percentile). Economically Disadvantaged, Hispanic and Black students were between 15 and 20 percentile points below the national average, while White and Asian students were significantly above the $50^{\text {th }}$ percentile.


The above August to February Reading growth results show less variability between subgroups than do the achievement data. In other words, subgroups are making somewhat comparable growth or progress, but the achievement gaps remain large. Other than the Native American subgroup, which is slightly below the $50^{\text {th }}$ percentile, all subgroups made Reading growth at or above the national average. Native American students and Hawaiian/Pacific Islanders (HPI) are by far the two smallest subgroups, and their results tend to fluctuate considerably over time. As the above graph shows, the HPI subgroup had extremely high Reading growth ( $77^{\text {th }}$ percentile).

We see very good growth for Students with Disabilities (SWD) and English Learners (EL), the two subgroups that were eligible for text-to-speech and read aloud test accommodations. Since growth was likely impacted by the mid-year change in test accommodations, the Reading results were re-analyzed after excluding students receiving read aloud accommodations to provide a more "apples to apples" comparison. The table that follows shows the subgroup results for students that did not receive text-to-speech or human reader accommodations.

Reading (excluding students with text-to-speech or human reader accommodation)

| Subgroup | February 2019 Achievement |  |  | August 2018 to February 2019 Academic Growth |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number Tested | $\begin{gathered} \text { Median } \\ \mathrm{NP} \end{gathered}$ | $\begin{aligned} & \text { \% in } \\ & \text { Q4-Q5 } \end{aligned}$ | \# Tested Aug \& Feb | Median Growth NP | \% Meeting Projection |
| All Students | 32,327 | 51 | 39.9\% | 29,543 | 54 | 55.4\% |
| Asian | 1,197 | 67 | 57.9\% | 1,137 | 57 | 59.8\% |
| Black | 13,652 | 38 | 26.4\% | 12,397 | 49 | 51.4\% |
| Hawaiian/Pacific Islander | 27 | 54 | 44.4\% | 26 | 69 | 61.5\% |
| Hispanic | 5,992 | 43 | 31.3\% | 5,332 | 53 | 55.3\% |
| Native American | 48 | 52 | 45.8\% | 42 | 43 | 47.6\% |
| White | 10,518 | 70 | 60.0\% | 9,822 | 59 | 59.7\% |
| Multi-ethnic | 893 | 54 | 43.4\% | 787 | 57 | 57.6\% |
| Econ Disadvantaged (ED) | 13,411 | 35 | 23.4\% | 11,901 | 50 | 52.3\% |
| Non-ED | 18,916 | 62 | 51.6\% | 17,642 | 56 | 57.4\% |
| English Learners (EL) | 1,782 | 8 | 4.8\% | 1,286 | 46 | 49.5\% |
| Non-EL | 30,545 | 54 | 42.0\% | 28,257 | 54 | 55.6\% |
| Students with Disabilities (SWD) | 2,566 | 18 | 19.0\% | 2,265 | 46 | 49.5\% |
| Non-SWD | 29,761 | 52 | 41.7\% | 27,278 | 54 | 55.8\% |

As expected, the growth data declined when students receiving additional test accommodations were removed. While the overall decline was relative small - 3 points for median growth national percentile and $2.3 \%$ for the percent of students meeting projections - the declines for certain subgroups were substantial. The two subgroups that are eligible for read aloud accommodations, Students with Disabilities and English Learners, saw declines in the median national percentile of 13 points and 25 points, respectively. The percentage of students meeting projections also declined significantly for these two subgroups.

These subgroups, of course, are not mutually exclusive, so other subgroups were affected when students receiving read aloud accommodations were excluded from analysis. The Hispanic subgroup, which includes many EL students, saw a nine-point drop in its growth national percentile. However, like most subgroups, the Hispanic subgroup still remained above the $50^{\text {th }}$ percentile.

Student subgroup results for the February Math assessment are shown below in the same format as we saw for Reading.

## Mathematics

| Subgroup | February 2019 Achievement |  |  | August 2018 to February 2019 Academic Growth |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number Tested | $\begin{gathered} \text { Median } \\ \mathrm{NP} \end{gathered}$ | $\begin{aligned} & \hline \text { \% in } \\ & \text { Q4-Q5 } \\ & \hline \end{aligned}$ | \# Tested Aug \& Feb | Median Growth NP | \% Meeting <br> Projection |
| All Students | 39,847 | 35 | 26.1\% | 36,377 | 55 | 57.1\% |
| Asian | 1,644 | 55 | 45.4\% | 1,551 | 59 | 61.0\% |
| Black | 15,073 | 26 | 15.5\% | 13,819 | 49 | 51.8\% |
| Hawaiian/Pacific Islander | 30 | 41 | 20.0\% | 28 | 73 | 60.7\% |
| Hispanic | 10,353 | 25 | 16.0\% | 9,139 | 56 | 57.8\% |
| Native American | 51 | 40 | 27.5\% | 45 | 49 | 51.1\% |
| White | 11,751 | 56 | 45.7\% | 10,953 | 60 | 62.5\% |
| Multi-ethnic | 945 | 44 | 29.5\% | 842 | 58 | 58.1\% |
| Econ Disadvantaged (ED) | 17,122 | 23 | 13.3\% | 15,377 | 51 | 53.8\% |
| Non-ED | 22,725 | 47 | 35.8\% | 21,000 | 58 | 59.4\% |
| English Learners (EL) | 7,242 | 11 | 5.4\% | 6,060 | 59 | 59.9\% |
| Non-EL | 32,605 | 42 | 30.7\% | 30,317 | 54 | 56.5\% |
| Students with Disabilities (SWD) | 4,691 | 7 | 8.5\% | 4,254 | 52 | 54.1\% |
| Non-SWD | 35,156 | 39 | 28.5\% | 32,123 | 55 | 57.4\% |

As with Reading, we see large achievement gaps for Mathematics, as reflected in the "Median NP" and "\% in Q4-Q5" columns of the above table, and relatively small differences in the growth data, as reflected in the last two columns. These differences in achievement and in growth can be seen in the two graphs that follow.


While White and Asian students have median national percentiles above the $50^{\text {th }}$ percentile, the national average, many subgroups - including Black, Hispanic and Economically Disadvantaged - are only around the $25^{\text {th }}$ percentile. Students with Disabilities are only at the $7^{\text {th }}$ percentile and English Learners at the $11^{\text {th }}$ percentile.


The Hawaiian/Pacific Islander subgroup, which is very small and thus tends to have results that fluctuate significantly over time, made excellent growth ( $73{ }^{\text {rd }}$ percentile) between August and February. The Math
growth median national percentiles for all other subgroups fell within a relatively narrow range between 49 and 60 .

## Quadrant and School Level Results

Quadrant and school level results are shown by grade level and across grades 2-9 as a separate attachment. This attachment first shows August and February Reading results followed by August and February Math results. The number of students tested, the number enrolled, and the test participation rate are shown for each test administration. These are followed by the percent of students in each quintile. Following the February achievement data are August to February growth data - the number of students with growth data, the median growth national percentile, and the percent of students meeting or exceeding growth expectations.

District and quadrant results are shown on the first two pages of the attachment, with Reading results on the first page and Math results on the second page. These are followed by school level results, with schools listed alphabetically within each quadrant.

