



Evanston/Skokie
School District 65



Evanston Township
High School
District 202

Superintendent's Joint Achievement Report 2015-16

Introduction

In 2014, the Boards of Education of School Districts 65 and 202 agreed they would like to better understand students' academic performance across the districts. They directed the districts' superintendents to develop a report to address this. In response, the superintendents developed a plan to annually publish a "Superintendents' Joint Achievement Report."

As presented to the Joint Boards of Education on March 16, 2015 meeting, each year's report will address a specific research question or questions. The questions will be selected by the superintendents and may reflect a summary of student achievement and/or evaluation of a specific program. The questions will reflect areas of interest of both districts and require collaboration to answer completely.

This report represents an important first step in collaborating with one another and is the beginning of a longer collaboration around building infrastructure, data analysis, and answering policy-related questions together.

Purpose of the Report

The superintendents selected student achievement in reading as the topic for the 2015-16 Superintendents' Joint Achievement Report. The report provides an assessment of the state of current student performance in reading across the two Districts. This report addresses the following research question:

From kindergarten through grade 12, how many students are on track for college and career-readiness in reading?

How to Interpret the Data

What it is

This report provides a snapshot of current student reading performance from kindergarten as measured by Illinois Snapshot of Early Literacy (ISEL), grades 3-8 spring Measures of Academic Progress (MAP) reading scores and grade 11 ACT reading scores. This snapshot includes all students enrolled in kindergarten and grades 3 to 11 in 2015-16 for whom Spring 2015 test scores are available. These data are presented overall and by subgroup.

This report was prepared by Peter Godard, District 65 Chief Officer of Research, Accountability, & Data; Kate Julian, District 202 Senior Research Associate; Carrie Levy, District 202 Director of Research, Evaluation, & Assessment; and Michael Rosenbaum, District 65 Project Specialist. Advising the team conducting this study were Pete Bavis, District 202 Assistant Superintendent of Curriculum & Instruction; Paul Goren, District 65 Superintendent; John Price, District 65 Assistant Superintendent of Schools; and Eric Witherspoon, District 202 Superintendent.

What it is not

The methods used here are only appropriate for looking at overall performance and performance of groups of students. They do not allow interpretation at the individual student level because the predictions of college readiness are only accurate for large groups of students. Comparison of individual student performance to the results in this report is inappropriate and lends itself to great misinterpretation because individual students develop reading skills in different ways and at different rates.

This report only represents a snapshot in time of reading performance. It does not look at growth over time.

Summary

Process-related findings

This is the first time in the history of the two school districts that a report of this nature has been produced. This is the first collaboration to look at data in an effort to create a “big picture” of our current students and their overall level of reading performance.

Through this initial collaboration, we learned that there are not technical barriers to matching data from the two districts for analysis. We also discovered a high degree of alignment between the existing measures of student performance used by the two districts.

This report and the process of its creation confirm the need for further collaboration between District 65 and District 202. Working together, we have made a first step in developing a better understanding of student performance in the two districts. We have also begun the process of working together to address the issues our analysis highlights. Further collaboration around data analysis will allow us to delve deeper into the data to fully inform the district policy makers about what interventions are needed and where.

Analytic findings: Big picture overview

The data presented below highlights for the first time the percent of incoming kindergartners coming into District 65 at or above the state benchmark in at least four out of five foundational literacy skills. In fall 2014, the most recent year that data is available, 54% of incoming kindergartners met the state benchmark in 4 or more foundational literacy skills.

A big picture view of students in grades 3 through 8 who met the Northwest Evaluation Association (NWEA)-defined benchmarks for college readiness at each grade level indicates that between 48 and 55 percent are meeting those benchmarks.¹ Between 52 to 56 percent of students in grades 9 to 11 are projected to meet the ACT College Readiness Benchmark (CRB) in reading, based on their 8th grade MAP score. As 11th graders taking the ACT, 55% of the current graduate class of 2016 met the ACT CRB in reading.

¹ The MAP college readiness benchmarks reported here are aligned with those used in District 65’s Strategic Plan Scorecard and Board Goals. See Appendix B for background information about the selection of the se benchmarks.

Across all of the grades there is a disparity in the percent of students who meet benchmarks based on family income as defined by qualification for a free or reduced price lunch (FRL).²

- In kindergarten 72% of students with full pay lunch status come into District 65 meeting the state benchmark on at least four foundational literacy skills, compared to 26% of students with free or reduced price lunch status.
- In grades 3 to 8, at least 66% or more of students with full pay lunch status meet the NWEA-defined college readiness benchmarks, compared to 25% or less of students with free or reduced price lunch status.
- In grades 9 to 11, at least 77% of students with full pay lunch status are projected to meet the ACT College Readiness Benchmarks in reading based on their 8th grade MAP score, compared to 25% of students with free or reduced price lunch status.

Percent of students meeting college readiness benchmarks as of spring 2015

Grad Year	Grade (2014-15)	All	Non-FRL	FRL	Black/African American	Hispanic/Latino	White
2016^	12	55%	76%	25%	20%	31%	86%
2017*	11	54%	78%	25%	24%	29%	84%
2018*	10	56%	77%	25%	22%	31%	83%
2019*	9	52%	78%	20%	19%	31%	82%
2020	8	55%	79%	22%	18%	34%	82%
2021	7	49%	68%	23%	21%	32%	71%
2022	6	50%	71%	20%	17%	28%	72%
2023	5	49%	70%	19%	20%	28%	72%
2024	4	49%	67%	21%	25%	25%	68%
2025	3	48%	66%	18%	19%	15%	70%

*Projected to Meet ACT CRB in Reading

^ Actual Percent that Met ACT CRB in Reading

Percent of students entering kindergarten at or above the state benchmark (50th percentile) in 4 or more foundational literacy skills as of fall 2014

Grad Year	Grade (2014-15)	All	Non-FRL	FRL	Black/African American	Hispanic/Latino	White
2027	K	54%	72%	26%	33%	23%	75%

² Students who qualify for free or reduced price lunch (FRL) live either in families who earn less than 180% of the federal poverty guideline or in institutions for delinquent or neglected youth. Students who have full pay lunch status (Non-FRL) live in families earning at least 180% of the federal poverty guideline.

Interpretative summary

In the data presented above, we observe consistency from kindergarten through graduation in terms of the percent of students meeting benchmarks in reading. We also observe consistency in regard to the disparity in reading performance between students from lower income households and students from higher income households.

These findings provide evidence to underscore the necessity of several strategies already adopted by the districts. These strategies include the following.

- District 65 is pursuing a strategy to improve the rigor and quality of instruction by developing and consistently implementing a framework that defines high quality curriculum and instruction. This framework will be a tool that catalogs elements of effective teaching so that teachers have a clear guide to improving instruction for all students. The framework development has so far focused on grades K-2, as instructional improvement in these grades has the potential to improve outcomes across the grade span.
- Jointly, Districts 65 and 202 have committed to adopting a disciplinary literacy instructional approach that challenges students to read, write, speak, and reason as practitioners of various disciplines including language arts, science, social studies, and the arts. In District 65, implementation of this approach will begin with social studies and science classes in grades six through eight.
- District 65 is pursuing a strategy to ensure consistent implementation of instructional approaches for struggling learners with focus on three groups: our lowest performing students (a group with a persistently high percentage of low income students and students of color), students with disabilities, and English Learners.

The findings also highlight the need for continued partnership not only with one another but also with other community organizations through the Cradle to Career Initiative. The gap in skills between incoming kindergarten students from lower income households and those from higher income households suggests that children and families in Evanston and Skokie may unmet needs that, if addressed, could improve the readiness of children for kindergarten. By June 2016, District 65 plans to conduct a Community Needs Assessment regarding the assets and needs of children from birth to five and their families. We aspire to create an assessment that can provide specificity about what services are needed to improve the level of kindergarten readiness in our communities.

Research Methods

Kindergarten

During the first month of school, District 65 teachers administer one-on-one assessments of foundational literacy skills to all kindergarten students. The Illinois State Board of Education (ISBE) created the ISEL to measure essential literacy skills needed by students to be successful readers. The fall administration of the ISEL for kindergarten students consists of five snapshots. Each snapshot assesses a single foundational literacy skill. The five skills assessed are alphabet recognition, phonemic awareness, one-to-one matching, letter sounds, and story listening. An alternative version of the ISEL is available in Spanish. To ensure accuracy and comparability of data, this report only includes data from assessments administered in English.

District 65 recently completed an analysis of ISEL results for incoming kindergarten students. In addition to summarizing performance on individual skills, the analysis provides a provisional estimate of kindergarten readiness in reading based on the foundational literacy skills measured on ISEL. For this estimate, a student was considered kindergarten ready in reading if the student scored at or above the statewide benchmark (50th percentile) on either four or five of the five ISEL snapshots administered during the first month of kindergarten.

This analysis of kindergarten ISEL data is informative about the skills of incoming kindergarten students and the gaps in skill between students who qualify for a free/reduced price lunch and those who do not. *It is important to note that the analysis has not been validated as predictive of future student performance, nor does it capture the full array of skills that are associated with readiness for kindergarten.*

The provisional definition at District 65 of kindergarten readiness in reading requires that a student score at or above the state benchmark based on a norm sample in four of five foundational literacy skills.

Appendix A contains a description of benchmark performance associated with each of these skills.

Grades 3-8

District 65 measures reading skills in grades 3 through 8 using the NWEA MAP assessment. This report is based on MAP scores from spring administrations of the assessment, which is administered to all students except those with the most severe cognitive disabilities and English Learners with a lower level of English proficiency.

In this report and in previous public reporting, District 65 has used college readiness benchmarks established by NWEA in 2011. These benchmarks were created using a statistical model and matched student scores between MAP and ACT. Using a matched set of three cohorts of students from grades 3 to 5, we were able to confirm that these benchmarks provide accurate predictions of future performance. A similar analysis with a different set of cohorts from grades 5 to 8 also found that these benchmarks provide accurate predictions of future performance.

Several methods for establishing our own local benchmarks on the MAP assessment were investigated, including a probability table based on 10-point RIT score bands and a logistic regression. Although we were able to construct a fairly accurate prediction of 11th grade college readiness from 8th grade MAP data, we were not able to predict 8th grade results from 5th grade results or 5th grade results from 3rd

grade results with precision. Appendix B contains further detail about our selection of benchmarks on MAP.

Appendix A contains a description of abilities for example skills associated with attaining a MAP score that meets or exceeds the college readiness cut points used in this report.

Grades 9-12

District 202 developed models predicting grade 11 ACT performance based on grade 8 MAP data using data from four ETHS graduate cohorts: 2011-2014. The total sample size used in developing the models was 2,018 students. For each student, their grade 8 spring MAP reading score was matched with their grade 11 ACT reading score. The likelihood of meeting or exceeding CRB on the ACT reading subtest was computed and results are reported for all students as well as by subgroup.

After the models were developed their validity was tested on ETHS graduate cohorts of 2015 and 2016. Grade 8 data for both cohorts was inputted into the model and grade 11 predicted performance was compared to grade 11 actual performance. With a rare exception due to small group sizes, the predicted percentage of students expected to meet or exceed ACT's CRB in reading was within two percentage points of the actual percentage

Appendix A contains a description of the skills acquired by students meeting the ACT College Readiness Benchmark of 22 in reading.

Limitations

Measuring College and Career Readiness in Reading - ACT

The only assessment of reading used to assess all students college and career readiness at ETHS is the ACT. The ACT assessment is a college admissions and placement test that focuses on the skills important for students to successfully transition from high school to college. The ACT includes tests of English, math, reading and science reasoning. Scores are provided for each subtest as well as a composite score.

ACT, Inc. has established what they call College Readiness Benchmarks (CRB) for each of the subject tests. These CRBs are the minimum ACT scores required for a student to have a high probability of success in the related credit-bearing college course. The reading test is aligned with college social science courses. Students meeting or exceeding the benchmark have about a 50 percent chance of earning at least a B and about a 75 percent chance of earning a C or better in their social science courses.

Since 2002, ETHS has administered the ACT to all students as part of an IL graduation requirement. While the ACT is currently no longer an IL graduation requirement, grade 11 students at ETHS continue to take the ACT that is given on a school day in the spring at school. The models and analyses in this report reflect these grade 11 scores and exclude scores from other ACT test administrations. Students whose ACT reading score equals or exceeds the CRB of 22 are deemed "college and career ready."

It is important to note that there are limitations to using the ACT for the purpose of assessing reading. A study conducted by Bettinger, Evans and Pope (2011) found the predictive validity of the ACT reading subtest is called into question. Their findings indicate that after controlling for mathematics and English scores, reading and science scores provide no predictive power with regard to college outcomes,

including GPA for the first and second year and dropout rates for the first and third years. Reading and science also have very little predictive power for high school GPA.

ACT is normed against select populations. Nationwide only 59% of graduating class of 2015 took the ACT. Only 13 states, including IL required the ACT for all students. A large proportion of test takers are self-selected population of college-going students that is skewed to a higher socio-economic population. This is very different from ETHS where all students take the ACT. Across all subject tests, ETHS outperforms IL and the nation.

Measuring Reading at District 65 Using Measures of Academic Progress (MAP)

Measures of Academic Progress (MAP), developed by the Northwest Evaluation Association (NWEA), is a computer adaptive assessment tool. The test is untimed and the assessment system adapts to each student's performance level. District 65 has used MAP as a benchmark assessment in grades three through eight for nearly a decade. The assessment is currently administered in the fall and in the spring with an optional winter administration available to teachers. This report is based on MAP scores from spring administrations of the assessment, which is administered to all students except those with the most severe cognitive disabilities and English Learners with a lower level of English proficiency.

In addition to its use as a benchmark assessment, District 65 uses the assessment to report to the community about the District's progress through its Strategic Plan Scorecard, its Achievement and Accountability Report. The District 65 Board has also adopted a set of outcome goals based on MAP data. Further, both Districts 65 and 202 use MAP data as a component in making student placement recommendations.

District 65 currently uses a set of college readiness benchmarks established by NWEA in its public reporting (Theaker & Johnson, 2011). However, as with the ACT, there are limitations to using MAP for the purposes of predicting college and career readiness. MAP is not been aligned with ACT's college and career readiness standards. The linked MAP and ACT tests do not measure the same construct and the tests are less likely to do so as the years separating them increases. NWEA reports that the benchmarks at eighth and ninth grade are more predictive of college readiness than benchmarks in fifth grade and the farther MAP scores are from ACT the less predictive they are of meeting ACT college readiness benchmarks (Thum & Matta, 2015).

NWEA conducted a study in 2011 linking MAP math and reading tests with ACT college readiness benchmarks. This study established college readiness benchmarks on MAP for grades three through eleven. This study used data from a large national sample to predict likelihood of achieving a college ready score on the ACT based on previous MAP scores (Theaker & Johnson, 2011).

Appendix A
Description of Skills Acquired at Transition Points

Description of abilities required to meet foundational literacy skill benchmarks (Barr et al., 2004)

Skill	Description of benchmark performance
Alphabet recognition	Student can recognize and name at least 40 of 54 upper and lower case letters.
Story listening	After listening to the teacher read a story, the student scores at least 15 out of 21 possible points based on verbal responses to nine questions asked by the teacher about the story (e.g., How did the story begin?).
Phonemic awareness	Student can match the initial phoneme of at least 6 of 10 words with the support of pictures of the possible matching words (e.g., Which one starts like <i>mail</i> : <i>foot</i> , <i>mop</i> , <i>bat</i> ?)
One-to-one matching	Student scores at least 4 of 9 points on an activity where they are asked to read and point to all words in three short sentences following after the teacher who reads and points to each word in the sentence before asking the student to do so. 3 of 9 points are awarded based on reading and pointing to all words; 6 of 9 points are awarded for correctly saying a close approximation of some of the words in the sentence.
Letter sounds	Student can orally reproduce at least 8 of 26 letter sounds upon seeing the associated alphabet characters.

Description of abilities for example skills associated with attaining a MAP score that meet/exceeds the college readiness cut points used in this report

Grade	Literature	Informational Text	Vocabulary
3	Locates and paraphrases information found in literary text	Identifies facts and opinions in informational text	Analyzes similar words to determine the meaning of a prefix
5	Makes inferences from information found in literary text	Locates information in informational text containing complex directions	Selects the correct word based on the suffix and definition
8	Infers the reason behind a character's actions in literary texts	Orders and paraphrases a sequence of events in informational text	Chooses the synonym (term not used) for a given word (abstract verb)

Skills Acquired by Students Meeting the ACT College Readiness Benchmark in Reading (22)

Close Reading	Central Ideas, Themes and Summaries	Relationships	Word Meanings/ Word Choice	Text Structure	Purpose and Point of View	Arguments	Multiple Texts
Draw logical conclusions.	Infer a central idea in straight-forward paragraphs.	Identify clear comparative relationships	Analyze how the choice of a specific word or phrase shapes meaning or tone.	Analyze how one or more sentences relate to the whole passage.	Identify a clear purpose of passages and how that purpose shapes content and style.	Analyze how one or more sentences offer reasons for or support a claim.	Draw logical conclusions using information from two literary narrative.
Paraphrase some statements as they are used.	Summarize key supporting ideas and details.	Identify clear cause-effect relationships	Interpret most words and phrases as they are used.	Identify a clear function of paragraphs.	Understand point of view.	Identify a clear central claim.	

Appendix B

MAP College Readiness Benchmark Detail

The college readiness benchmarks used by District 65 come from the first of two studies conducted by NWEA to establish college readiness benchmarks for the MAP assessment (Theaker & Johnson, 2011). This study established college readiness benchmarks on MAP in reading and math for grades three through eleven. The study used data from a large national sample to predict the likelihood of achieving a college ready score on the ACT based on previous MAP scores (Theaker & Johnson, 2011).

The study used a two step process to estimate the college readiness benchmarks. First, the researchers created a logistic regression model for each grade level. In grade eight, for example, the model provides an estimate of the likelihood of achieving a college ready grade eleven ACT score for each possible score on the grade eight MAP. They based these estimations on a previous study which indicated that MAP scores were an accurate predictor of college readiness using data from a state that required ACT tests for all students (NWEA, 2012). Finally, the researchers established college readiness benchmarks on the MAP tests for earlier grades based on the MAP score above which students had at least a 50 percent likelihood of attaining a college ready MAP score in grade eleven (Theaker & Johnson, 2013).

In 2015, NWEA conducted a second study to link MAP math and reading tests from grades five through nine with ACT college readiness benchmarks (Thum & Matta, 2015). A key difference in the design of this second study is that it controls for students' likelihood to take the ACT rather than assuming that likelihood to take the ACT is random. Because the population of ACT test takers is not representative of the national student population, this approach has the potential to skew the estimates. The study attempts to control for this issue with statistical techniques (Hedeker & Gibbons, 1997). However, the possibility of estimates that are not based on a diverse population is especially important to pay attention to in the Evanston/Skokie context.

The more recent study identified college readiness benchmarks in reading that are three to five Rasch Unit (RIT) points lower than the study described above. For context, this equates to a difference in percentile ranging from 3 to 12 percentiles lower in the more recent study. In grade 8, for example, the college readiness cut point for reading falls at the 70th percentile in the 2011 study and the 67th percentile in the 2015 study.

This difference in cut scores translates to a difference of estimates of the percent of students who are college ready. Again using the grade 8 example, we estimate that 55 percent of students met or exceeded college readiness benchmarks in reading in 2015 by using the cut points from the 2011 study. In comparison, the cut points from the 2015 study result in an estimate of 62 percent of students meeting or exceeding college readiness benchmarks in reading. At lower grades, this gap is wider.

Given the difference between the estimates from NWEA's studies, the joint District 65 and 202 team decided to conduct our own analysis using MAP and ACT reading scores from several cohorts of District 65/202 students. We investigated several methods for establishing our own local benchmarks on the MAP assessment including a probability table based on 10-point RIT score bands and a logistic regression. We were able to construct an accurate and reliable prediction of grade 11

college readiness on the ACT from grade 8 MAP data. However, we were not able to accurately predict grade 8 results from grade 5 results or grade 5 results from grade 3 results. It may yet be possible to build a model that accurately predicts likelihood of attaining college ready ACT scores in District 202 based on MAP scores in earlier grades in District 65. However, the statistical sophistication that would be required to do so was beyond the resources available for this initial collaboration.

Accordingly, we elected to use college readiness benchmarks created by NWEA. In consideration of the results on the grade 8 prediction model described in the body of this report, we chose to use the MAP college readiness benchmarks from the earlier NWEA study (Theaker & Johnson, 2011). This choice not only allows us to estimate college readiness in grades three and four, but also ensures that the non-representativeness of the sample in the more recent study is not an issue.

As a final step toward ensuring this was the best approach to estimating college readiness in grades three through eight, the joint team analyzed the consistency of the college readiness predictions between grades three and five and between grades five and eight.

For the grade three to five analysis, we analyzed MAP reading scores for three cohorts of grade three students who entered grade three in 2010, 2011, and 2012. Our analysis included only those students who had spring MAP reading tests both in grade three and grade five. The analysis showed a high degree of consistency both at the aggregate level and by subgroup, particularly in light of the concerns documented in NWEA's studies about estimating college readiness in grades three and four. Overall, the percent of matched students who met or exceeded the NWEA RIT score considered likely to meet the ACT college readiness benchmark in reading at grade three differed only one percentage point from the percent of students who met or exceeded the NWEA RIT score cut point at grade five.

Our analysis for grades five to eight focused on three cohorts of grade five students who finished grade five in 2009, 2010, and 2011. Our analysis included only those students who had spring MAP tests both in grade five and grade eight. The analysis showed an even higher degree of consistency both at the aggregate level and by subgroup than we observed in the equivalent grade three to grade five analysis. This finding further confirms the finding from NWEA's studies that estimates of college readiness are more accurate for middle grades than elementary grades. Overall, the percent of matched students who met or exceeded the NWEA RIT score considered likely to meet the ACT college readiness benchmark in reading at grade five was the same as the percent of students who met or exceeded the NWEA RIT score cut point at grade eight.

Appendix C References

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