



To: Dr. Paul J. Sally, Superintendent
New Trier Township High School Board of Education

From: Peter W. Tragos, Assistant Superintendent for Curriculum and Instruction

Re: Standardized Testing Report for the Class of 2018

Date: November 19, 2018

Introduction

This report has been produced annually since 2010 and provides the Board of Education with information on the ACT performance of the latest graduating class. For the graduating class of 2018, the ACT scores and test taking patterns of 945 students were analyzed. As sophomores, this class took a retired PLAN test, administered in the fall of 2015. A total of 761 students took both the PLAN test and the ACT test, and those scores are used in the analysis of student growth.

In early 2016, Illinois changed its state-mandated college entrance test to the SAT from the ACT. In response, starting with the Class of 2019, we piloted two new sophomore tests: the Pre-ACT and the PSAT-10, while also continuing to offer a district-funded ACT to our students. The first administration of those two new tests was in the fall of 2016 and spring of 2017, respectively. The Standardized Testing Report for the Class of 2019 will take on a new format due to the change in tests.

Additionally, earlier this year the State of Illinois adopted the College Board's Suite of Assessments, which includes a three-year sequence of exams beginning with the PSAT-9, followed by the PSAT-10, and culminating with the SAT for Juniors. In response to the newly mandated assessment, starting with the class of 2022, New Trier will administer the PSAT-9 in the spring of 2019. Sophomores will continue to take the PSAT-10 and juniors will continue to take the SAT. At the state level, these three assessments comprise one component of the state's accountability system to ensure students are receiving a quality education that keeps students on pace to meet growth targets from K-12. Student performance on these assessments will factor significantly into a school's summative designation rating on the annual Illinois School Report Card, and will identify schools in need of targeted support.

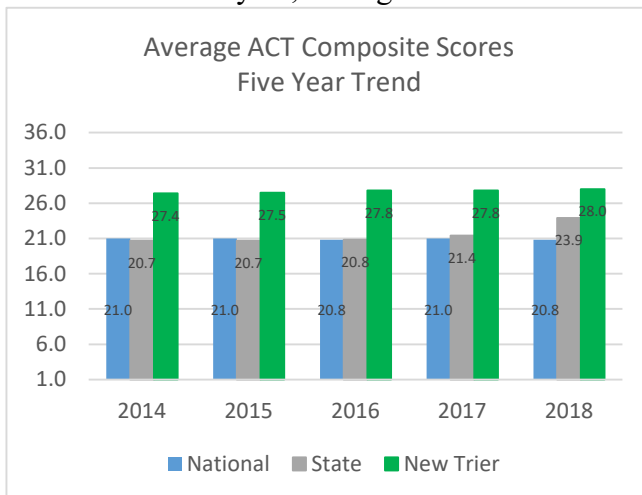
Although we have over a decade's worth of longitudinal ACT data, we are preparing to make the shift to the College Board's Suite of Assessments as the instruments for tracking and reporting student growth and achievement to the Board. The state's move from ACT to SAT as the state-mandated accountability exam impacts whether or not we continue to offer a district-funded ACT, which I explain in greater detail later in the memo.

The table below summarizes the timelines and tests by graduating class:

Graduating Class	Testing Report Date	Sophomore Test Date	College Entrance Test	Student Growth Measure	
2016	September 2016	PLAN (fall 2013)	ACT	PLAN → ACT	
2017	September 2017	Retired PLAN (fall 2014)	ACT	Retired PLAN → ACT	
2018	November 2018	Retired PLAN (fall 2015)	ACT SAT	Retired PLAN → ACT	
2019	November 2019	Pre-ACT (fall 2016) PSAT-10 (spring 2017)	ACT SAT	Pre-ACT → ACT PSAT-10 → SAT	
2020	November 2020	Pre-ACT (fall 2017) PSAT-10 (spring 2018)	ACT SAT	Pre-ACT → ACT PSAT-10 → SAT	
2021	November 2021	Pre-ACT (fall 2018) PSAT-10 (spring 2019)	ACT SAT	Pre-ACT → ACT PSAT-10 → SAT	
Graduating Class	Testing Report Date	Freshman Test Date	Sophomore Test Date	College Entrance Test	Student Growth Measure
2022	November 2022	PSAT-9 (spring 2019)	PSAT-10 (spring 2020)	SAT	PSAT-9 → PSAT-10 → SAT

Key findings for the Class of 2018

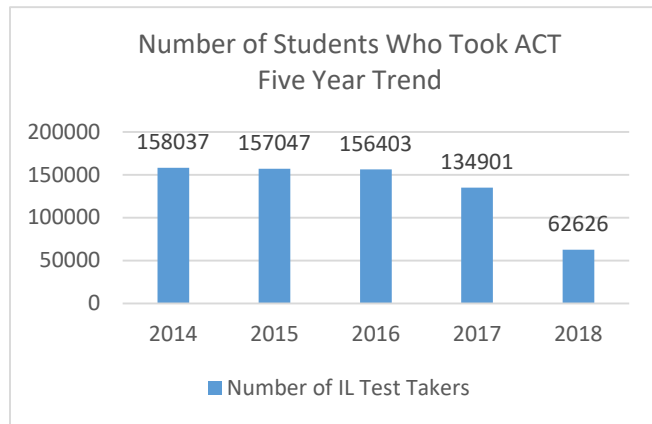
Our overall achievement on the ACT continues to be the top in the state for open enrollment, non-selective, high schools. *As importantly, the achievement of our students in our non-AP curriculum is at remarkably and consistently high levels.* Two important pieces of data illustrate this fact. First, the 574 students who enrolled in level 3 English during their senior year, never having taken an AP English class, averaged 28.7 on the English ACT, with 44% of these students scoring in the top ten percent of the nation, and 99% of them meeting the college readiness benchmark in English (Table 1.3). Second, the 242 students who enrolled in level 3 Pre-Calculus senior year, averaged 27.5 on the math portion of the ACT, with 48% of these



students scoring in the top nine percent of the nation, and 98% of them meeting the college readiness benchmark in math (Table 1.6). These data tell an important story about the strength of our non-AP curriculum and we added this data to the school profile that we send to colleges.

Notably, New Trier’s average composite ACT score has trended upward over the last five years, and the state average has increased significantly over the last two

years to its highest average of 23.9 in 2018. At the same time, the number of test takers has decreased dramatically over the past two years as a result of the state’s decision to transition students to the SAT, now given to all juniors and paid for by the state. The fact that only 43% of the graduating class of 2018 across the state took the ACT means most test takers were college bound, driving up scores compared to years when the exam was compulsory for juniors. However, New Trier still requires all juniors to take the ACT so the growth shown over time is across comparable populations.



The PLAN to ACT analysis in the report focuses on the growth of our students compared to benchmarks set by ACT. First, using historical data, ACT predicts an ACT score range for each student based on their PLAN score. The higher a student’s PLAN score, the higher the range for the predicted ACT score. At every level of performance on the PLAN, New Trier students exceed the predicted high value of that range in numbers far greater than expected based on ACT’s analysis (Table 3.1).

Our second student growth measure considers the College Readiness Benchmarks set by ACT for both the PLAN test and the ACT test. Students not reaching these benchmarks are more at-risk than their peers in terms of post-secondary success. In mathematics, college readiness grew from 73% of the class on the PLAN to 86% of the class on the ACT. That represents a net total of approximately 13% of the class, who reached the college readiness level between the PLAN and the ACT. The results were similar on the science and reading tests (Table 3.3).

These growth measures support our belief that students in all levels of classes experience a rigorous and engaging curriculum, have excellent teachers, and are dedicated to learning.

Finally, for the fourth year in a row, the number of ACT tests taken per student has decreased. The Class of 2018 averaged 2.7 ACT tests per student (Table 2.4). Four years ago, for the Class of 2015, the average number of ACT tests per student was 3.1 and that represents a statistically significant decrease in the number of tests per student over that time. Since our average scores have increased over that time, this change represents a positive redirection of time and effort for our students.

What follows are specific analyses on the depth and quality of our students’ achievement, ACT test taking patterns, PLAN to ACT growth, and ACT scores broken down by gender.

I. Depth and Quality of Student Achievement

- The average ACT composite score in Illinois was 23.9.
- The average ACT composite score in the nation was 20.8.
- The average ACT composite score for New Trier's class of 2018 was 27.9
- The average ACT composite score for New Trier's class of 2017 was 27.8

**Note: there is a slight difference in the 28.0 average composite score reported by ACT and our 27.9 calculation due to shifts in the student populations when calculating averages.*

Grad Class	Composite Score ≥ 34	
	% NT	Top % of Nation
2018	12.2%	1%
2017	10.7%	1%

Grad Class	Composite Score ≥ 31	
	% NT	Top % of Nation
2018	35.2%	5%
2017	32.6%	5%

Grad Class	Composite Score ≥ 29	
	% NT	Top % of Nation
2018	50.1%	9%
2017	48.5%	10%

Grad Class	Composite Score ≥ 24	
	% NT	Top % of Nation
2018	81.9%	26%
2017	81.7%	25%

Tables 1.2

English

- The average English score for New Trier students was 28.7.
- 21% of New Trier students were in the top 1% of the nation.
- 49% of New Trier students were in the top 10% of the nation.
- The average English score in Illinois was 24.1.

Grad Class	Avg English Score	% NT in Top 1% of Nation (Score ≥ 35)	% NT in Top 10% of Nation (Score ≥ 29) (Score ≥ 30)*
2018	28.7	21.2%	48.9%
2017	28.4	16.2%	52.7%

Table 1.2 *In 2018, the cut score increased from 29 to 30 to rank in the top 10% nationally.

Scores by Capstone English Course

Class of 2018					
Capstone English Course	# of Students	Avg Last English Score	% NT in Top 10% of Nation (Score ≥ 30)	% NT Above National Avg (Score ≥ 20.2)	Meet College Readiness Benchmark (Score ≥ 18)
AP English	173	33.7	92.5%	100%	100.0%
English, Level 4	45	33.1	91.1%	100.0%	100.0%
English, Level 3	574	28.7	43.6%	97.3%	99.0%
English, Level 2	128	21.0	3.1%	57.8%	75.8%

Table 1.3

Class of 2017					
Capstone English Course	# of Students	Avg Last English Score	% NT in Top 10% of Nation (Score >= 29)	% NT Above National Avg (Score >= 20.3)	Meet College Readiness Benchmark (Score >= 18)
AP English	184	33.3	90.8%	99.5%	100.0%
English, Level 4	73	32.1	89.0%	100.0%	100.0%
English, Level 3	561	28.4	49.4%	97.3%	99.3%
English, Level 2	158	21.8	7.0%	65.8%	77.8%

Table 1.4

Math

- The average math score for New Trier students was 27.2.
- 14% of New Trier students were in the top 1% of the nation.
- 51% of New Trier students were in the top 9% of the nation.
- The average math score for Illinois was 23.4.

Grad Class	Avg Math Score	% NT in Top 1% of Nation (Score >=34)	%NT in Top 9% of Nation (Score >=28)
2018	27.2	14.4%	51.2%
2017	27.1	11.1%	48.8%
2016	27.4	12.3%	53.3%

Table 1.5

Scores by Math Capstone Course

Class of 2018					
Capstone Math Course	# of Students	Avg Last Math Score	% NT in Top 9% of Nation (Score >= 28)	% NT Above National Avg (Score >= 20.5)	Meets College Readiness Benchmark (Score >= 22)
AP Mathematics	363	31.5	91.7%	99.4%	99.4%
Level 3 Pre-Calculus or beyond	242	27.5	47.9%	98.8%	98.3%
Level 2 Pre-Calculus or beyond	219	23.7	9.6%	84.9%	76.3%
Other	96	19.3	4.2%	31.3%	26.0%

Table 1.6

Class of 2017					
Capstone Math Course	# of Students	Avg Last Math Score	% NT in Top 9% of Nation (Score >= 28)	% NT Above National Avg (Score >= 20.3)	Meets College Readiness Benchmark (Score >= 22)
AP Mathematics	328	31.7	89.9%	100.0%	100.0%
Level 3 Pre-Calculus or beyond	297	27.8	56.2%	97.6%	97.0%
Level 2 Pre-Calculus or beyond	258	23.6	5.8%	82.9%	76.0%
Other	93	19.4	3.2%	30.1%	25.8%

Table 1.7

ACT Averages by Math Capstone Course

Capstone Math Course	Class of 2018		Class of 2017	
	# of Students with ACT	Avg Last Math Score	# of Students with ACT	Avg Last Math Score
MV Calculus	34	35.1	21	34.9
BC Calculus	75	33.5	89	33.8
AB Calculus	219	30.5	193	30.6
AP Statistics	35	29.5	25	29.3
Post Pre-Calculus, level 3	80	27.9	104	28.5
Pre-Calculus, level 3	162	27.3	193	27.4
Post Pre-Calculus, level 2	39	25.4	29	24.9
Pre-Calculus, level 2	180	23.3	229	23.4
Other	96	19.3	93	19.4

Table 1.8

ACT College Readiness Benchmarks

According to ACT a benchmark score is the “*minimum score needed on an ACT subject-area test to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding credit-bearing college.*”

ACT derived these benchmarks from empirical data of student ACT scores and grades in the initial college courses in these areas. The reading scores were compared to college grades in social science classes and the science scores were compared to college grades in Biology.

Test	ACT Benchmark Score	Class of 2018		Class of 2017	
		% of All Students Nationally meeting this Benchmark	% of New Trier Students meeting this Benchmark	% of All Students Nationally meeting this Benchmark	% of New Trier Students meeting this Benchmark
English	18	60%	96.0%	61%	95.9%
Math	22	40%	85.5%	41%	85.1%
Reading	22	46%	87.3%	47%	89.6%
Science	23	36%	82.0%	37%	81.3%
All 4	--	27%	74.6%	27%	73.5%

Table 1.9

The data show an exceptional level of college readiness as compared to the nation. Examination of the students who do not meet the benchmarks is underway, but not all benchmarks are of equal concern. As an example, many students will not take biology in college, but they will almost all take a social science class leading to more concern about the Reading benchmark than the Science benchmark.

The results of this analysis are very positive; however, the benchmarks have a number of shortcomings. First, this type of analysis does not look at the underlying reasons for why some students reach the benchmark yet do **not** perform well in these college classes or why some students do **not** reach the benchmark and do perform well in these college classes.

Second, many aspects of college academic readiness cannot be measured by a multiple choice test. Simple examples that teachers integrate into their classes are writing assignments in English and social studies and assessing thought processes and problem solving skills in math and science.

Finally, we also know that college success depends on significant social-emotional factors not captured by tests such as time management skills, persistence, resilience, self-awareness, and relationship skills needed to navigate dormitory and college life. These social-emotional life skills are a critical element of the New Trier experience, and our alumni report feeling very well-prepared in these areas. The administration will continue to supplement this analysis through student surveys and data from the National Student Clearinghouse. Future reports to the board will include those analyses.

II. Student ACT Test Taking Patterns

The next chart shows the number of times our students took the ACT along with the average of their first, last, and best ACT score. As a reminder, ACT does all of their analysis using the last score. The first and best scores are shown to give an indication of average growth.

# of ACT Tests Taken	# of Students with ACT	% of Students	Avg First Score	Avg Last Score	Avg Best Score	% of Students Achieved New Best Score on Last Test
1	182	19.3%	27.3	27.3	27.3	100
2	251	26.6%	27.8	28.6	29.1	55
3	280	28.6%	26.5	27.9	28.6	41
4	145	15.3%	26.1	27.8	28.6	37
5	62	6.6%	25.7	27.7	28.7	29
6	19	2.0%	25.2	26.3	27.8	21
7	4	0.4%	23.5	27.6	28.6	14
8	2	0.2%	24.5	31.0	32	50
Total 2018	945*	100%	26.9	27.9	28.5	54
(2017)	(1000)		(26.6)	(27.8)	(28.3)	(52)

Table 2.1

*Includes all Class of 2018 students with ACT scores (graduated and inactive).

Date of First ACT – Class of 2018

Class of	ACT Date	# of Students with ACT	Avg First Score	Comment
2018	Before Junior Year	39	25.9	Before Junior Year
	September 2016	51	28.5	Start of Junior Year
	October 2016	85	28.7	After 1 st Quarter Junior Year
	December 2016	179	27.9	Near end of 1 st semester Junior Year
	February 2017	157	27.3	Early 2 nd semester Junior Year
	April 2017	65	27.1	Early 3 rd Quarter Junior Year
	April 2017	362	25.6	State Testing Date Junior Year
	June 2017	3	24.7	After State Testing Date Junior Year
	Senior Year	4	26.5	Start of Senior Year
	Total	945*	26.9	

*Includes all Class of 2018 students with ACT scores (graduated and inactive).

Table 2.2

Class of	ACT Date	# of Students with ACT	Avg First Score	Comment
2017	Before Junior Year	27	24.6	Before Junior Year
	September 2015	72	29.5	Start of Junior Year
	October 2015	122	28.8	After 1 st Quarter Junior Year
	December 2015	128	26.7	Near end of 1 st semester Junior Year
	February 2016	170	27.2	Early 2 nd semester Junior Year
	April 2016	98	26.0	State Testing Date Junior Year
	April 2016	371	25.5	After State Testing Date Junior Year
	Senior Year	12	24.1	Start of Senior Year
	Total	1000*	26.6	

Table 2.3

Average Number of ACT Tests Taken

A longitudinal comparison of some of these data helps to identify an area for investigation. The average number of ACT tests taken by New Trier students decreased for the fourth year in a row. The number of tests per student has decreased to 2.7 for the Class of 2018 from 3.1 tests per student for the Class of 2014 (table 2.4). That represents a statistically significant difference in the number of tests taken per student

Class of	# of Students with ACT	Avg # of ACTs Taken
2014	1049	3.1
2015	1049	3.0
2016	978	2.9
2017	1000	2.8
2018	945	2.7

Table 2.4

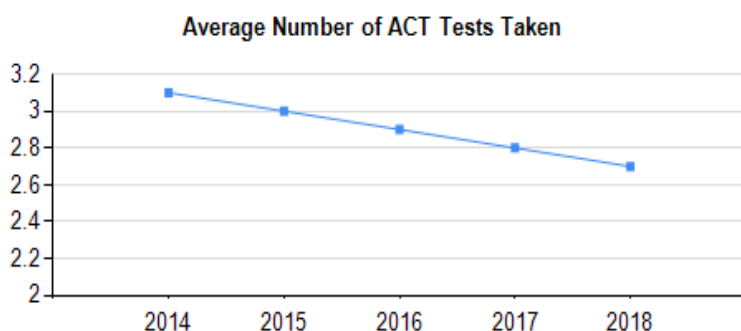


Table 2.5

III. PLAN to ACT Growth

The student growth measure analysis is presented in two parts: 1) growth of composite score from PLAN to ACT and 2) growth in the college readiness benchmark by subject from PLAN to ACT.

Because the graduation Class of 2016 was the last class for which we were able to administer an official PLAN test, the graduating classes of 2017 and 2018 took a retired PLAN test in order for us to continue measuring student growth on standardized tests. While we did not have national PLAN test data for 2017 and 2018 as a baseline for comparison, the data remains remarkably consistent at the national level, and we were able to project ACT high and low ranges using historical data trends as the basis for the 2018 analysis.

Growth in Composite Score from PLAN to ACT

Again this year, a large percentage of our students exceeded ACT's projected high score while few ended below the predicted composite low score. ACT uses historical data to set a mid-50% range for ACT scores based on a student's PLAN score. The higher the PLAN score, the higher

the predicted ACT range. *Remarkably, at every PLAN score, our students exceeded, by a large margin, the percentage of students who were expected to achieve above predicted ACT range.* Overall, 54% of our students exceed the mid-50% range (table 3.1). The growth in these scores are exemplary and speak to dedicated students, excellent teaching, and a dynamic and engaging curriculum.

Class of 2018						
Plan Score Range % National	Plan Score Range National	# of Students	% of Students	% Below projected ACT	% Within projected ACT	% Exceeding projected ACT
Lowest 25%	1-14	18	2.4%	0.0	38.9	61.1
Mid-50%	15-18	143	18.8%	2.8	42.0	55.2
Top 25%	19-26	540	71.0%	2.6	40.9	56.5
Top 1%	27-32	60	7.9%	5.0	65.0	30.0
	Total	761*	100%	3%	43%	54%

Table 3.1

*Includes Class of 2018 students who took both PLAN and ACT (graduated and inactive).

Class of 2017						
Plan Score Range % National	Plan Score Range National	# of Students	% of Students	% Below projected ACT	% Within projected ACT	% Exceeding projected ACT
Lowest 25%	1-14	12	1.4%	16.7	50.0	33.3
Mid-50%	15-18	160	19.0%	16.7	46.9	51.3
Top 25%	19-26	617	73.2%	2.4	40.2	57.4
Top 1%	27-32	54	6.4%	5.6	44.4	50.0
	Total	843	100.0%	3%	42%	55%

Table 3.2

Growth in College Readiness by Subject from PLAN to ACT

Class of 2018					
Subject	PLAN Benchmark Score	% Meeting PLAN Benchmark	ACT Benchmark Score	% Meeting ACT Benchmark	% Increase in Students Meeting Benchmark
English	16	89.9%	18	96.0%	6.1%
Math	19	73.1%	22	85.5%	12.4%
Reading	18	76.1%	22	87.3%	11.2%
Science	20	69.4%	23	82.0%	12.6%

Table 3.3

Includes students who took PLAN or ACT or both.

Class of 2017					
Subject	PLAN Benchmark Score	% Meeting PLAN Benchmark	ACT Benchmark Score	% Meeting ACT Benchmark	% Increase in Students Meeting Benchmark
English	16	89.9%	18	95.9%	6.0%
Math	19	74.4%	22	85.1%	10.7%
Reading	18	78.9%	22	89.7%	10.8%
Science	20	65.8%	23	81.4%	15.6%

Table 3.4

IV. Gender Differences

ACT Composite Score

Grad Class	Gender	# of Students with ACT	Composite	English	Math	Reading	Science
2018	Female	462	27.8	29.3	26.5	28.4	26.5
	Male	483	28.0	28.1	27.9	28.3	27.3
2017	Female	491	27.9	29.2	26.7	28.7	26.6
	Male	509	27.6	27.7	27.5	27.9	27.1

Table 4.1

- This analysis includes students who were not at New Trier for four years.
- 2018 The difference in average ACT scores by gender is statistically significant for English, Math, Science, but not Reading or Composite
- 2017: The difference in average ACT scores by gender is statistically significant for English, Math, Reading, Science, but not Composite.

Number of ACT Tests Taken

Gender	Class of 2018		Class of 2017	
	# of Students	Avg # of ACTs Taken	# of Students	Avg # of ACTs Taken
Female	462	2.9	491	2.9
Male	483	2.5	509	2.6

Table 4.2

Note: The difference in the average number of ACT tests taken is statistically significant for 2018.

ACT Scores by Capstone Math Class

Capstone Math Class	Gender	Class of 2018		Class of 2017	
		# of Students	Avg Math ACT Score	# of Students	Avg Math ACT Score
AP	Female	170	30.8	151	31.0
	Male	193	32.0	177	32.2
Pre-Calculus, level 3	Female	121	26.7	157	27.6
	Male	121	28.3	140	28.1
Pre-Calculus, level 2	Female	123	23.2	137	23.2
	Male	96	24.3	121	24.2
Other	Female	40	18.8	38	19.1
	Male	56	19.7	55	19.8

Table 4.3

The difference in average ACT scores in 2018 is statistically significant in all capstone math courses except “other” capstone courses.

ACT Score by Capstone English Class

Capstone English Class	Gender	Class of 2018		Class of 2017	
		# of Students	Avg English ACT Score	# of Students	Avg English ACT Score
AP	Female	115	33.8	115	33.3
	Male	58	33.6	69	33.3
English, Level 4	Female	28	32.5	49	31.8
	Male	17	34.2	24	32.9
English, Level 3	Female	266	28.6	264	28.5
	Male	308	28.7	297	28.3
English, Level 2	Female	45	20.8	55	21.6
	Male	83	21.0	103	21.9

Table 4.4

The difference in average ACT scores in 2018 is statistically significant in level 4, but not in the other categories.

V. District-Sponsored ACT

When the state transitioned from ACT to SAT in 2016 as the mandated college entrance exam, other districts discontinued administering the ACT to students during the regular school day. Conversely, we continued to administer a District-funded, school day ACT to all juniors because we had over a decade’s worth of longitudinal student data keyed to the ACT exam, and we were also uncertain of the state’s long term commitment to the SAT. Therefore, for the next three years, we continued administering both the ACT and SAT sequence of exams. As we continued to provide a district-funded ACT, our ten peer districts chose not to do so, and instead have

moved entirely to the SAT Suite of Assessments. In the summer of 2018, the State of Illinois entered into a six-year contract with College Board to provide the SAT Suite of Assessments, which includes PSAT-9, PSAT-10, and SAT, to high school students across the state, demonstrating their commitment to the SAT as the school accountability instrument for the foreseeable future. After a careful analysis of whether to continue offering a district-funded ACT, while also administering the three mandated College Board exams, I am recommending New Trier discontinue providing a District-funded, school-day ACT to juniors, beginning with class of 2022.

Of course, the current junior class will take the ACT in February 2019 and the current sophomore class took the PreACT in last month, and will be the last class to complete their ACT sequence during spring of their junior year. We will then phase out the District ACT to the current freshman class of 2022 because they will be the first group of students to take the state mandated three-year sequence of SAT exams.

Recognizing the importance of the ACT to our students – nearly 90% of students use the exam as their primary college entrance exam -- our students also average 2.7 ACT exams per student, so in addition to the school-day exam we have provided, they also take the exam multiple times. Approximately 65% of students take their first ACT before the district-funded exam in April of their junior year, and they will continue to take the exam on Saturday as they currently do. In lieu of a school-day exam, New Trier will be a national ACT test site every April so students will have the opportunity and convenience to take the exam on a Saturday at their home school. As we move the ACT from the school day to a Saturday, our Test Center and Director of Curriculum and Instruction, Dr. Chimille Dillard, will continue to provide information and guidance to students and families. Additionally, ACT will still deliver its annual report on student performance to New Trier, which is important to tracking student achievement on standardized tests and reporting this information to the Board and our community.

Student growth, however, will be tracked using the three data points provided by the sequence of SAT Suite of Assessments. Because the first mandated PSAT-9 will be administered to the class of 2021 in April 2019, the state has yet to collect data for its three-year growth models. Before deciding whether to discontinue the ACT, we wanted to be certain we could measure student growth using our current PSAT-10 → SAT data using the class of 2019. Although this is the first class to take the PSAT-10 and SAT, we conducted an analysis of student growth for this class and believe this data will yield quality information necessary to measure student growth and provide us with enough additional data to support students and inform instructional decisions.

VI. Conclusions

This report gives the district an opportunity to dig deeper into our test score data more than just reporting overall averages. That deeper analysis confirms the high level of achievement of New Trier students and the significant growth they make in their four years at New Trier. Beliefs in the rigor of our curriculum, the quality of our instruction, and the dedication of our students are affirmed by the data in this report. The results truly represent the cumulative effect of a rich core academic and elective curriculum that emphasizes thinking and mastery. Such a collective effort by each and every student, family, and teacher is reflected in the strength of these scores.

In addition to validating those positive beliefs, this analysis informs New Trier of opportunities for further growth and raises some questions for the school to examine. While New Trier has great test scores, we need to ask questions such as:

- Recognizing these scores are but one part of a student's holistic experience, what other data points are important to collect and correlate in order to better understand the student experience and assess and expand the range of our own success metrics?
- For students with low average scores in comparison to their New Trier peers, what is their overall experience like? What are their grades and course taking patterns, and do those measures tell a different story?
- While New Trier has one of the highest public school percentages of students reaching the College Readiness Benchmarks, how can the curriculum and instruction be improved for those students who are not?
- Are male and female students, and all subgroups, being provided equitable opportunities for learning in each discipline?

Finally, this report sets a priority for the school - ensure our students, families, wider community, and colleges know about the depth and breadth of achievement of our students. The administration will work toward this goal by integrating these data into the Profile of the Class 2018, presenting the data and discussing it with Parent Association groups, and working with Post-High School Counseling to make sure college admissions offices have the key pieces of data in the report that show the rigor of our curriculum and the college readiness of our students in all academic levels.

Appendix I – Background and Methodology

The Tests

The ACT test is the standardized college entrance test taken most frequently by New Trier students. In addition, through the 2016 school year, the state of Illinois required all juniors to take the ACT as part of state testing in order to determine if a school is making *Adequate Yearly Progress* (AYP) according to the regulations set forth in *No Child Left Behind* (NCLB) legislation. ACT scores range from 1-36 except for writing which ranges from 1-12. The validity of the ACT writing test in predicting a student's ability to tackle college level writing assignments is questioned by many groups, in particular the National Council of Teachers of English (NCTE). The writing scores are not part of this analysis. From the ACT Website:

The ACT

The ACT[®] test assesses high school students' general educational development and their ability to complete college-level work.

- *The multiple-choice tests cover four skill areas: English, mathematics, reading, and science.*
- *The Writing Test, which is optional, measures skill in planning and writing a short essay.*

The PLAN

As a "pre-ACT" test, PLAN is a powerful predictor of success on the ACT. At the same time, many schools recognize the importance of PLAN testing for all students, as it focuses attention on both career preparation and improving academic achievement.

The PreACT

PreACT, administered in grade 10, gives students practice with the ACT test and empowers them, their parents, and educators with these valuable insights even sooner. PreACT provides: Early indication of progress and ideas for improvement; fast, robust reporting; easy, flexible, and affordable administration. The choices a student makes in high school help chart a course for life after it. Educators can use insights from PreACT report data to help students prepare for success—and start making informed choices well before graduation.

The SAT Suite of Assessments

The College Board has expanded its Suite of Assessments, and we administer four of the tests within this collection: PSAT-9, PSAT-10, PSAT/NMSQT, and SAT.

From the College Board website: Each assessment in the SAT Suite of Assessments — the SAT, PSAT/NMSQT, PSAT 10, and PSAT 8/9 — includes a Reading Test, a Writing and Language Test, and a Math Test. The SAT also features an optional essay component, which some colleges will require. Questions throughout the assessments focus on skills that matter most for college readiness and success, according to the latest research.

Methodology

These analyses are mainly based on a student's last ACT score. While it is tempting to use a student's best score, doing that would introduce systemic error into the analyses. ACT acknowledges that a given test has error in reflecting a student's "true" ACT score, sometimes higher and sometimes lower. By using the best score, we would be over-representing our student's overall achievement on these tests. ACT uses the same methodology to compile its official reports.

While ACT uses the last score attained by a student for statistical analysis, colleges use the best score attained by a student. Many schools also use a composite "super score" in which they use the best sub-score in each of the four areas and use those scores to calculate a new composite "super score."

When comparing test scores of two groups, it is quite rare for the two averages to be the same. Yet, the difference of the averages between the two groups may not be significant. In fact, the difference in the averages may just be due to random chance of a few kids having a very good day. If we were to repeat the test next year, the group with the lower average might outperform the group with the higher average.

A standard t-test was used to evaluate whether the averages of two groups were significantly different. Using this type of test, two averages are statistically different if it is at least 95% certain that the difference in the averages is not due to random chance.