Oak Park and River Forest High School District 200

201 North Scoville Avenue • Oak Park, IL 60302-2296

TO: Board of Education

FROM: Amy Hill, Director of Assessment and Research

DATE: January 28, 2016

RE: Leading Achievement Indicators Update

BACKGROUND

At the January 19 Instruction Committee meeting, we gave an update to the October 2015 report on ACT Composite and GPA as leading indicators of post-secondary readiness. The October report provided an analysis of evident and persistent racial disparities in both measures. At the conclusion of that report, several areas for further study were noted, including "course placement tools and processes and their impact on student course-taking patterns and academic outcomes." Given the premise that academic outcomes are largely influenced by a student's specific learning experiences in high school, it makes sense to start from the student's point of entry to assess the relationship between the high school's practices and racially disparate student learning experiences and outcomes. In December, we identified additional questions for follow up:

- To what extent do initial course placements predict variations in ACT and GPA? What does race have to do with initial course placements?
- To what extent does course level enrollment (e.g. transitions, college prep, honors/AP) across a four-year sequence predict variations in ACT and GPA? What does race have to do with students' four-year course level enrollments?

The Instruction Committee unanimously recommended that this report be sent to the Board of Education as an information item on its January 28 agenda.

SUMMARY

Course enrollment for incoming freshmen is influenced by a number of factors and processes, including the following:

- Student academic data, including scores from the Explore test, a supplemental math test, and world language tests administered at OPRFHS during the eighth grade year; 8th grade courses, grades, and MAP scores (from Districts 97 and 90)
- Course recommendations made by OPRFHS division heads on the basis of the prior data points
- Student interests and family input, including the potential for parents to choose a course other than what is recommended by a division head (referred to as an "override")
- Transition staffings for students who have IEPs.

Test Scores, Course Recommendations, and "Overrides"

Explore Test scores have been a primary data point for course recommendations for many years. The scores tend to skew in racially predictable ways, with Black and Latino students' scores distributed over a lower range than scores for White and Asian students. Our assumption has been that scores reflect real differences in students' levels of high school readiness (particularly in terms of reading and math proficiency) and that, taking all the academic data into consideration, it is appropriate to make recommendations for courses we believe provide the student with the greatest likelihood of success. A number of questions are raised by this process, including the extent to which course recommendations are made in alignment with student academic data.

Analysis of 8th grade data and course recommendations for current OPRFHS freshman students indicates that there was a high degree of fidelity between the data points and the recommendations. Division heads were consistent in using the data cut points they identified to make recommendations. Variations from cut score guidelines did occur in some cases at plus-or-minus one point from the cut scores, but there was no evidence of racial disparity in the variations. However, because Black and Latino students' Explore scores skewed lower and White and Asian students' scores were more concentrated at a higher range, recommendations based upon Explore scores still broke out differently among racial groups, with higher proportions of White and Asian students recommended for honors courses compared to transitions and college prep courses, and higher proportions of Black and Latino students recommended for transitions and college prep level courses compared to honors courses. Thus on a very basic level, the relationship between race and freshman course enrollments is evident. What is less evident and worth further inquiry are other ways in which race may influence course recommendation and enrollment processes.

A second analysis of the data for current freshmen looked at the extent to which course enrollments matched course recommendations. A prevalent notion among school staff is that White parents "override" course recommendations frequently and disproportionately, compared to parents of color, and select a higher level course for their children's freshman year (e.g. overriding a recommendation for a college prep level English course in favor of an honors level course). If that were the case, we would expect to see greater proportions of White students than students of color shifting from college prep recommendations to honors enrollments. A comparison of recommendations to actual enrollments for the current freshman class shows that across four of the five divisions with course recommendations for incoming freshmen, 90% of students enrolled at the level that was recommended. Of the 10% who enrolled at a different level, some did choose a higher level course, and the rate of doing so did not vary widely by race. Some families also chose a lower level course than the recommendation Figure 1 in the data appendix shows the percentages of students in the current freshman class who enrolled in a course higher or lower than what was recommended, by subject. It is worth looking at available historical data to see how far back this pattern holds or whether it is a more recent phenomenon.

Other questions from the committee probed the extent to which students enrolling in Transitions-level courses move out of Transitions and into College Prep or Honors and also asked about measures of student success for overrides. Related to course recommendation and enrollment procedures, a committee member asked whether it would be helpful to use more longitudinal grade and course information from the middle school experience and what role counselors play in student course selections.

Relationship Between Freshman Year Courses and ACT Composite Scores/GPA

We sought to understand the relationship between freshman course level enrollments and students' post-secondary readiness indicators—ACT composite and GPA. What does race have to do with freshman course enrollments? To what extent do freshman course enrollments predict variations in ACT and GPA? Data from the Class of 2015, for whom we have ACT and GPA data, show clear relationships between these leading achievement indicators and a student's freshman year course levels in English, Math, Science, and History (Figure 3). Enrollment in a freshman year transitions-level course in any one of the four core areas correlated with an average ACT composite score in the range of 15.9-16.3, compared to an average range of 21-23.6 for college prep level enrollments and a range of 28.6-30.7 for honors level enrollments. Unweighted GPA averages were also predicted by freshman course level enrollments, with transitions-level predicting a cumulative four-year GPA roughly .5 lower than college-prep level enrollments, and honors enrollments carrying an average unweighted GPA roughly .6 higher than college prep.

Among the committee members there was an interest in a clearer connection between Figure 1 and Figures 2-3 and in identifying the questions that can help us understand how better to prepare students of color for post-secondary success.

RECOMMENDATIONS/NEXT STEPS

This report is included as an information item. Future reports may address questions raised in the original report or since its publication, including

- How does our weighted GPA system function to reward or discourage students?
- What expectations are associated with honors v. college prep level classes?
- How do grading policies and practices influence student outcomes?
- To what extent do test scores reflect readiness or provide a reliable measure for course recommendations?
- To what extent do course recommendations serve the students' best interests?
- Where students entered OPRFHS with similar Explore scores and took similar courses, were there outcomes that differed by race?
- Where students entered OPRFHS with similar Explore scores but experienced differential rates of growth to ACT, what were the differences in their courses? We may also look at other school experiences and records related to attendance and behavior as influences on student test score growth.

APPENDIX: Figures and Data

FIGURE 1. Enrollment Compared to Recommendations, Current Freshman Class

World Language	Number and % of Students Enrolling in Higher Level WL Language Course than Recommended						
		Asian	**Black**	**Hispanic**	**Multi-Racial**	**White**	**Grand Total**
	Count	1	5	3	2	33	44
	% of Group	10%	5%	8%	4%	10%	8%
	Number and % of Students Enrolling in Lower Level WL Language Course than Recommended						
		Asian	**Black**	**Hispanic**	**Multi-Racial**	**White**	**Grand Total**
	Count	1	1		2	7	11
	% of Group	10%	1%	0%	4%	2%	2%
Science	Number and % of Students Enrolling in Higher Level Science Course than Recommended						
		Asian	**Black**	**Hispanic**	**Multi-Racial**	**White**	**Grand Total**
	Count	1	7	4	2	23	37
	% of Group	6%	7%	10%	4%	6%	6%
	Number and % of Students Enrolling in Lower Level Science Course than Recommended						
		Asian	**Black**	**Hispanic**	**Multi-Racial**	**White**	**Grand Total**
	Count			**2**	**2**	**17**	**21**
	% of Group			5%	4%	5%	4%
	Number and % of Students Enrolling in Higher Level Math Course than Recommended						

Math

	Asian	Black	Hispanic	Multi-Racial	White	Grand Total
Count	1	26	12	11	67	117
% of Group	6%	17%	21%	17%	16%	16%

Number and % of Students Enrolling in Lower Level Math Course than Recommended

	Asian	Black	Hispanic	Multi-Racial	White	Grand Total
Count	3	11	6	7	41	68
% of Group	18%	7%	11%	11%	10%	9%

History

Number and % of Students Enrolling in Higher Level History Course than Recommended

	Asian	Black	Hispanic	Multi-Racial	White	Grand Total
Count	1	5	1	4	13	24
% of Group	8%	4%	3%	8%	4%	4%

Number and % of Students Enrolling in Lower Level History Course than Recommended

	Asian	Black	Hispanic	Multi-Racial	White	Grand Total
Count		1	3	4	25	33
% of Group		<1%	8%	8%	7%	6%

English

Number and % of Students Enrolling in Higher English Course than Recommended

	Asian	Black	Hispanic	Multi-Racial	White	Grand Total
Count	1	9	2	6	33	51
% of Group	6%	6%	4%	9%	8%	7%

Number and % of Students Enrolling in Lower English Course than Recommended

	Asian	Black	Hispanic	Multi-Racial	White	Grand Total
Count	1	2	0	4	14	21
% of Group	6%	1%	0%	6%	3%	3%

FIGURE 2. What does race have to do with freshman course enrollments?

Percent of Freshman Enrollments by Subject, Level, and Race, Class of 2015														
	English			Math			Science				History			
	Transitions	CP	Honors	Transitions	CP	Honors	Transitions	CP	Honors	No Science	Transitions	CP	Honors	No History
Asian	0%	31%	69%	0%	40%	60%	0%	34%	51%	14%	0%	26%	43%	31%
Black or African American	16%	57%	27%	11%	77%	11%	8%	62%	7%	23%	4%	49%	20%	27%
Hispanic	3%	44%	52%	5%	50%	44%	2%	59%	19%	21%	2%	38%	36%	24%
Multi-Racial	2%	42%	56%	0%	49%	51%	0%	65%	29%	6%	0%	31%	37%	32%
White	1%	24%	76%	1%	36%	62%	0%	48%	39%	12%	1%	25%	51%	23%
Grand Total	5%	35%	61%	4%	48%	48%	2%	53%	30%	15%	2%	32%	42%	25%

FIGURE 3. To what extent do freshman course enrollments predict variations in ACT and GPA? Class of 2015

	English			Math			Science			History			Four courses at same level	
	Count (Sem)	Average ACT Comp	Avg UWGPA	Count (Sem)	Average ACT Comp	Avg UWGPA	Count (Sem)	Average ACT Comp	Avg UWGPA	Count (Sem)	Average ACT Comp	Avg UWGPA	Average ACT Comp	ACT Score Range
Transitions	146	15.9	2.266	92	16.3	2.316	60	15.9	2.252	37	15.9	2.257	15.3*	12-18*
College Prep	504	21.0	2.739	515	22.8	2.785	756	23.6	2.787	460	21.6	2.787	20.5	13-28
Honors	848	28.6	3.355	667	29.7	3.470	416	30.7	3.502	580	28.8	3.340	31.4	19-36

*Includes scores for students who took transitions level English and Math, some of whom had transitions level Science and/or History and some of whom did not take Science and/or History in the freshman year.