# BECOMEX THE畨 CHANGE 

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The Education Trust

## Readiness for Whom? Readiness for What? Patterns in College and Career Readiness <br> through an Equity <br> Lens

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## Echoes in the Room

## Michigan Area Superintendent

"Mission Drift"

# Graduation rates have inched up over the past decade. 

Average Freshmen Graduation Rate, 2003-2012


## But $12^{\text {th }}$ grade achievement has remained flat, particularly in math.

Grade 12 - NAEP Math


And a high school diploma is no longer considered an indicator of readiness

In the words of a community college institutional research director........

## Nearly half of students of color who enter college need to take a developmental course.

Percent of Students Taking a Remedial Course at $1^{\text {st }}$ Postsecondary Institution, by Race, 2004
Seniors who Entered College by 2006, Educational Longitudinal Study


[^0] Note that rates are much higher at 2-year institutions than at 4-year institutions.

Once thought of as an alternative to immediate college enrollment, the military is not an option for many underprepared students.

In the words of a Michigan Army Recruiter....

Of graduates who want to join the military, nearly 1 in 4 do not have the requisite skills to pass the entry exam.

Percent of Military Applicants Who Get an Ineligible Score on the ASVAB, High School Graduates, 2010


[^1]And we're hearing similar themes from workforce.

In the words of the foreman of a large logging mill plant...

# Of high school graduates not in college: 

## 72\%

## say they would have taken more challenging courses if they had understood workforce expectations.

## So what's going on in high schools?

- The following slides have results from 3 analyses:
- HSTS (2009): Transcript analysis representative of 2009 high school graduates
- ELS (2002): A longitudinal analysis of 2002 sophomores, who are followed into 2004.
- Qualitative interviews with high school students conducted between 2009-2014
- Some Definitions:
- Low- or high-achieving: Scored among the lowest or highest $25 \%$ of all sophomores on a reputable reading and math assessment
- Socioeconomic status (SES): A Measure of multiple background characteristics, including parental income, parental education, and parental occupational status
- High-SES: Highest 25\% of the SES distribution
- Low-SES: Lowest $25 \%$ of the SES distribution


## How many and which students are completing a college and career ready curriculum?

## Concentration Type <br> Requirements

| "Career Ready" <br> CTE Concentrator | -3 CTE courses in the same occupational field. There are 21 occupational fields, but for this analysis, we have condensed the taxonomy into 8 categories, making it easier to meet the requirements: <br> 1. Agricultural and Natural Resources <br> 2. Business \& Marketing <br> 3. Communications and Design <br> 4. Computer and Information Sciences, Engineering <br> 5. Trades (Construction, manufacturing, repair, etc.) <br> 6. Consumer and Culinary Services <br> 7. Health Sciences <br> 8. Public Services <br> There are currently 16 career pathways, to which these are loosely tied. |
| :---: | :---: |
| "College Ready" <br> New Basics College Core | -4 years English <br> -3 years math <br> -3 years science <br> -3 credits social studies <br> -2 credits in same foreign language <br> This generally matches current state college admissions requirements. |

# Only 9\% of seniors complete both a college and career ready curriculum; about half complete just a college curriculum. Alarmingly, nearly $30 \%$ complete neither. 

Curriculum Type, 2009 Graduates, HSTS

*Only CTE variables that are related to specific career fields are examined. Units in family/consumer science and general labor market preparation are not included for explorer or career-ready status.

Low curriculum completion rates affect all groups of students, but are particularly pronounced among Hispanic students.

Curriculum Type, by Race, 2009 Graduates, HSTS


About half of low-income students complete a college ready curriculum, compared to nearly $65 \%$ of higher income students. Low-income students are more likely than higher income students to concentrate in CTE.

Curriculum Type, by FRL Status, 2009 Graduates, HSTS


## So why aren't more students reaching the college/career ready bar?

## Students are entering at very different levels of achievement, with different preparation leading up to high school. For many students, incoming achievement dictates future trajectories.

Highest Math Course Taken, by Initial Reading and Math Achievement, 2002
Sophomores, ELS


Taking a math course beyond Algebra II is a predictor of college enrollment and success. Who meets it?
-16\% of initially low-achieving students
-80\% of initially high-achieving students

And conversations in some schools with students raise concerns about the information and guidance students receive when selecting high school courses.-Particularly for students who rely on schools for this information.

Students like Deja, who we met in a Michigan high school......

Information isn't the only barrier. Even students who get into courses can face considerable hurdles to readiness. And these hurdles have longterm consequences.

Course quality is among them.

## Course titles aren't always the best indicator of what's being taught.

Percentage of Graduates in Algebra I Course Levels, 2005


For example, 34\% of graduates who took regular Algebra I courses were exposed to mostly rigorous material, compared to only $18 \%$ of students who took "honors" Algebra.
 course. Beginner courses cover more introductory material; Intermediate courses cover a balanced mix of introductory and advanced material; Rigorous courses cover mostly advanced material.

High School Juniors talk about course rigor....
"How much reading? - None"

Course quality: Among students who enter high school achieving at similar levels, students of color and low-SES students pass a smaller share of the AP tests they take than white and high-SES students.

Percent of AP Tests that Receive a Score of 3 or Higher, High-Achieving Students, by
Race and SES, (ELS)


# Even some students taking high level classes question the level of rigor.... 

"My calculus class wasn't really calculus."

We also need to focus on student success, providing the supports that students need to master content the first time around.

## The role of course failures: Students who aren't college ready are twice as likely to have failed at least one course, compared to those who are.

Fails and Withdrawals in Student Population, by Curriculum Type, 2009 Graduates, HSTS


Note: The graph shows number of lost credits, not lost courses, due to failures. Courses are weighted by the average credit hour in each school, in order to account for differences in master schedules. In other words, some students receive 0.5 credits, on average, whereas others receive 1 credit , on average, for a course.

Course Failures: Among students who aren't college ready, black and Latino students are about twice as likely as white students to lose 3 or more credits due to failure/withdrawals.

Fails and Withdrawals in Student Population, by Race, Did not Complete College Ready Curriculum, 2009
Graduates, HSTS


[^2] whereas others receive 1 credit , on average, for a course.

A high school sophomore talks about academic struggle and support....

"You Just Stop Raising Your Hand"

## Takeaways

\#1 Although we've seen some improvement over the past decade in terms of graduation outcomes, our high schools aren't adequately preparing all students, particularly traditionally underserved students, for postsecondary education and training.
\#2 About a third of students aren't exposed to either a foundational academic curriculum or a career sequence in high school.

## Takeaways (Cont.)

\#3 Even for students who gain access to courses, quality can vary substantially, potentially underlying achievement disparities.
\#4 Many high school students don't feel supported and encouraged to master course material, and course failures function as a critical impediment to accessing to a collegeready curriculum.

But some high schools are doing much better for low-income students and students of color on measures of access, quality- and success.

Lessons drawing from our Dispelling the Myth/It's Being Done work where we:

- Identify high performing or rapidly improving high poverty and high minority schools
- Learn how schools and districts are achieving those results
- Keep in mind that no school is perfect, all continually striving to improve, but there are valuable lessons to learn from each.


## Eliminating Barriers to Postsecondary Readiness and

 Monitoring Students' Progress....These high-performing schools:

- Believe in the potential of their students and help them reach their goals by being honest and deliberate
- Create master schedules that are flexible and allow students to accelerate learning
- Have clear and specific goalsfor what students should learn in every course and courise sequences that are vertically aligned to build knowledge and skills
- Build relationships among staff, students and families that are based on respect and expectations.


## Access, Quality, and Success at Elmont Memorial High School

## Elmont Memorial High School

## Elmont, New York

## 2011-2012 School Year

- Grades 7-12
- 1,907 students
- 78\% African American
- 12\% Latino
- 29\% Low-Income


# Elmont's Approach: Removing barriers and tracking progress 

In the words of Principal John Copozzi....

## How they did it....

- In 2007, Principal Capozzi eliminated the 2-year geometry course that was preventing students from reaching Algebra II/Trigonometry, a course required for the advanced regents diploma.
- Students who passed the 1-year course but failed the regents exam took a geometry topics course their senior year, which gave them another opportunity to pass the exam.
- The school sets individualized goals for students, such that each student moves up a proficiency level.
- Teacher teams and administration analyze data, which is disaggregated by standard (i.e. question analysis) and teacher.


# Nearly half of Elmont graduates earned an advanced diploma 

Graduates with Advanced Diplomas, Elmont vs. the State


## High Achievement in All Subjects at Elmont, But Geometry Still an Area of Improvement



## Supporting Students for Success at University Park

## University Park Campus School

## Worcester, MA

- 253 students in grades 7-12 in 2012-2013
- 48\% Latino
- 19\% White
- 23\% Asian
- 9\% African American
- 81\% Low Income


Aligning high school work with college at University Park HS
https://www.youtube.com/watch?v=sVcdVqrSQeA\&feature=yout u.be

# A University Park high school Sophomore talks about challenge and success... 

"You Sign A Contract With Yourself"

## High Rates of 4-Year College Enrollment at University Park

Graduates Attending 4-year College or University (2011 Graduates)


Thinking Through These Issues at the School Level: A New York Example

The New York System: Students receive different types of diplomas and/or accolades based on the courses they complete and their performance on assessments.

|  | Regents Diploma | Advanced Regents Diploma | Aspirational Performance Measure (APM) |
| :---: | :---: | :---: | :---: |
| Description | Standard Diploma | Better aligned with college entry standards | Meeting these requirements allows students to place out of remedial coursework at CUNY schools. |
| Total Credits | 22 credits | 22 Credits |  |
| ELA | 4 | 4 |  |
| Social Studies | 4 (Global, U.S., Econ, Govt) | 4 (Global, U.S., Econ, Govt) |  |
| Science | 3 (Life, Physical, 1 Life or Physical) | 3 (Life, Physical, 1 Life or Physical) |  |
| Math | 3 | 3 (Algebra, Geometry, and Algebra 2/Trig) |  |
| Language | 1 | 3 |  |
| Assessment Criteria | 65+ on 5 exams (English, any Math, Global History, US History, any Science) | 65+ on 9 exams (English, Global History, US History, Algebra, Geometry, Alg2/Trig, Living Environment, Chem/Physics/Earth Sci, Foreign Language) | Earn a 75 on English Regents exam AND 80+ on an applicable math regents |

## In a small group, articulate the differences between the three postsecondary readiness indicators.

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| Physical) |  |  |  |

On your spreadsheet, you will see data for 5 NYC public high schools (and NYC).

- The schools have been selected based on their similar:
- Geographic location
- Size
- Student demographics
- Admission strategy (all are lottery-based)
- Curricular focus (college prep or STEM).


## In a group:

1. What do the data suggest about students' level of preparation in each school, in terms of courses taken and academic performance?
2. Is it the same for all groups?
3. What do the data suggest could be barriers or chokepoints that prevent students from achieving higher levels of preparation?
4. What additional information would help you answer this question?

## Workshop (cont.)

1. Reflect on your own experience in schools and communities:
2. Do students and families have clear information regarding course selection and sequencing, supports, and implications for pursuing certain courses?
3. What interventions exist in your own context to support students to be successful in coursework and assessments?
4. How would you gauge the quality of courses students take? What evidence are you using?
5. Discuss with your group how transcript and/or outcome data could help you develop new strategies in your school or community.

## Other Resources

- For more information on resources and tools you can use to examine patterns of college and career readiness in your school, visit: http://www.edtrust.org/west/west-resources/diploma-matters


## Michigan Area Superintendent

"They Went to the Edge and They Flew"


[^0]:    Source: Education Trust analysis of Educational Longitudinal Study, Examines 2004 seniors who entered college by 2006. Includes students at <2-year, 2 year, and 4 year colleges.

[^1]:    Source: The Education Trust, Shut Out of the Military, 2010

[^2]:    Note: The graph shows number of lost credits, not lost courses, due to failures. Courses are weighted by the average credit hour in each school, in order to account for differences in master schedules. In other words, some students receive 0.5 credits, on average,

