



HAWAI'I P-20  
Partnerships for Education

Hawai'i  
**DXP**  
Data eXchange  
Partnership

# ISSUE Brief | JULY 2017

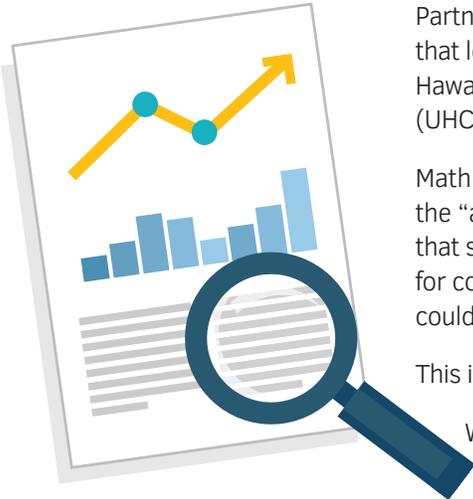
## Using High School Data to Boost Achievement in College Math

The power of data lies in its ability to create powerful change. Data from the Hawai'i Data eXchange Partnership (Hawai'i DXP) helps to do exactly that, by impacting educational policy and practice that lead to improvement in student achievement. One example is the collaboration between Hawai'i DXP, the Hawai'i State Department of Education (DOE), and UH Community Colleges (UHCCs) to boost student achievement in college math.

Math placement tests have been used as the primary tool for placing incoming freshmen into the "appropriate" courses at UHCC campuses for many years. However, studies have revealed that such standardized placement tests may not always adequately reflect students' readiness for college-level courses. Roughly one in four students assigned to a remedial math course could have earned a B or better in a higher, college-level course.<sup>1</sup>

This is troubling because a student who starts in a remedial course is less likely to finish college.<sup>2</sup>

With the help of data and analysis from Hawai'i DXP, the UHCCs are now using valuable high school information, rather than a single test, to get more students who are ready into a college-level course and earning a passing grade.



### UHCC Placement Pilot Project Using Data From Hawai'i DXP

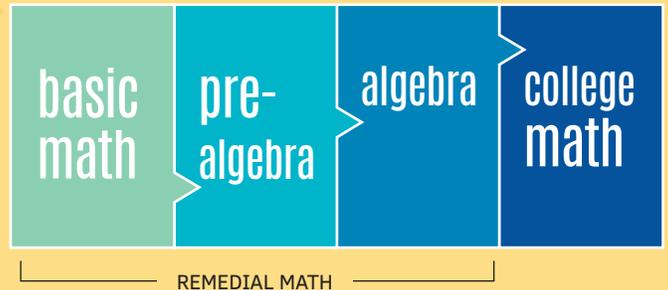
UHCC data has shown that only about one in four UHCC students who start in a remedial math course just below college level eventually pass a college-level math course within two years.<sup>3</sup> Students who start in the lowest-level course are even less likely to pass, let alone complete one.

To change this, in Fall 2013, Kaua'i Community College piloted a program to use high school data instead of placement test scores to place students into college-level math. Hawai'i DXP, in collaboration with DOE, provided Kaua'i Community College with information on whether DOE graduates met math course grade, GPA, and ACT/SAT test score criteria for placement. The pilot was expanded to include UH Maui College in Fall 2014.

**Pilot results: Students placed into math courses using their high school data were much more likely to pass a college-level math course with a "C" or better.**<sup>4</sup>

**37%**

**PREDICTED** college math passing rate of pilot participants (within 2 years of starting college, if they had started in a remedial math course based on their placement test scores)



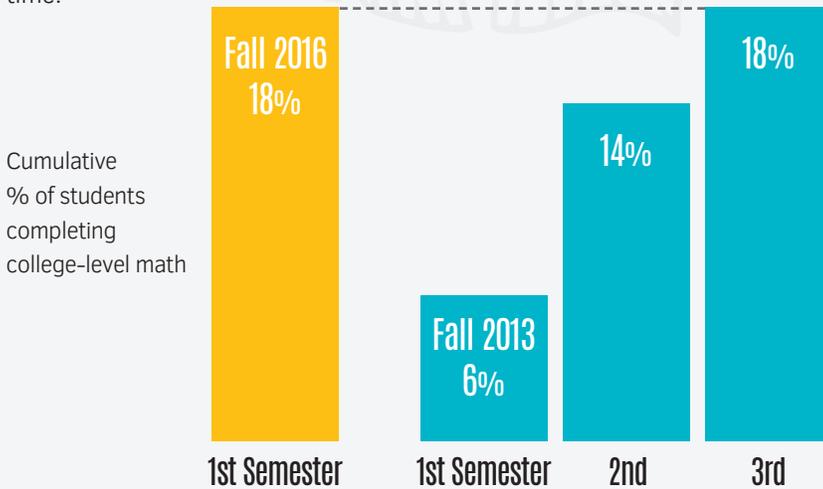
**63%**

**ACTUAL** college math passing rate of pilot participants (placed into college-level math based on high school data instead of remedial math based solely on placement test scores)

# Better Policies for Better Student Achievement

The success of the pilot programs at Kaua'i Community College and UH Maui College laid the foundation for the development of new UHCC policies using high school data instead of placement test scores to place students in courses starting Fall 2016. Incoming freshmen can now self-report a variety of high school data to determine their placement in math, as well as English. The UHCCs have also redesigned math curricula, delivery, and teaching methods to help students successfully complete college-level courses.

The combination of new placement policies, course design, and structure has resulted in many more students taking and passing college-level math, putting them on a path to succeed in college and graduate on time.<sup>3,5</sup>



Cumulative % of students completing college-level math

UHCC students 3x more likely to complete college-level math in their 1st semester under the new policies.

Under the old policies, students would have taken 3 semesters to reach the same % of college-level math completion.

Since its inception in 2009, data and analysis from Hawai'i DXP has been helping to positively impact educational policy and practice. Hawai'i DXP aims to inform policy- and decision-making to improve student and workforce outcomes for the benefit of our community.

<sup>1</sup> Scott-Clayton, J., & Stacey, G. W. (2015). *Improving the accuracy of remedial placement*. New York, NY: Columbia University, Teachers College, Community College Research Center.  
<sup>2</sup> Complete College America. (2012). *Remediation: Higher Education's Bridge to Nowhere*.  
<sup>3</sup> Morton, J. (2015). *University of Hawaii Community Colleges Strategic Directions 2015-2021 Fall 2015*.  
<sup>4</sup> Kalk, J. & Millard, E. (2016). *Accelerated Learning via Math 75 – the College Math Path*.  
<sup>5</sup> Bio, C., Iboshi, P. & Stearns, J. (2017). *Redesigning math and English – student success pathway*.

Placement test scores were telling us the majority of incoming students were not ready for college-level work – it was a grim picture. We created levels and levels of remedial courses to support our students, but these long sequences turned out to be more of a barrier. The Placement Pilot Project showed we could use robust measures like high school GPA to identify students who are ready for college work.



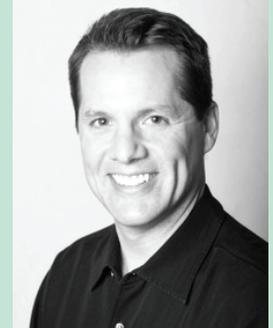
- Jonathan Kalk, Associate Professor of Mathematics, Kaua'i Community College

With the UH Community Colleges' new placement policies, our DOE graduates are now evaluated on the basis of data – their high school achievements are valued as information for placement into college-level mathematics and English. The new policies are already showing positive impacts in paving the way for our graduates to complete their college degrees.



- Mahina Anguay, Principal, Waimea High School

Unused data is the same as uncollected data. Hawai'i DXP has been invaluable in connecting, analyzing, and using data to inform critical decisions. The impact of Hawai'i DXP can be felt not only at the policy level, but also at the implementation level. It helps teachers, counselors, and students understand the best academic pathways available for students to reach their college and career goals.



- Dan Doerger, Alignment Director, Hawai'i P-20 Partnerships for Education

## What questions can Hawai'i DXP help answer for you?

CONTACT | Jean Osumi • [josumi@hawaii.edu](mailto:josumi@hawaii.edu)  
[www.hawaiidxp.org](http://www.hawaiidxp.org) • [www.p20hawaii.org](http://www.p20hawaii.org)

