

# Report: Most new students at Clark need math help

## Effort under way to better prepare them

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The majority of first-time students who arrived at Clark College last fall were unprepared for college-level math classes and needed remedial courses.

Officials from two local districts have begun working with Clark faculty to narrow the gap between what kids learn in high school math classes and what they need when they get to campus.

A fact sheet presented to the Clark College Board of Trustees this week showed the college readiness — or lack thereof — of students from local high schools.

Nearly 3,500 new students enrolled at Clark last fall. About 750 of them had transferred from another college with previous credits.

The rest of the newcomers — 2,742 students — had to take the COMPASS test, which determines which level of coursework they're ready for. Overall, students fared well in reading and writing, with great majorities ready to earn college credits in courses labeled "100" or above — think English 101.

But very few students were ready for Math 101 and would instead have to spend their tuition money on courses for which they receive no college credit while they catch up on their numerical skills.

The numbers in the report, which do not include comparisons

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# Math

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with previous years, must be viewed with two important caveats.

The report includes only students who wanted to start their college career at Clark. Hundreds of students from local high schools head straight to four-year universities in their freshman year and some — a few dozen each year — go to prestigious schools elsewhere in the country.

And ambitious students who took Advanced Placement classes in high school don't need to take the placement test because they already received college credit for their AP classes.

They're likely to have high math skills but were not considered in this report, which is based solely on COMPASS results.

## A matter of time

Although some of the high performers may be starting their freshman year elsewhere, the majority of Clark County students who go to college go to Clark College, according to 2009 data compiled by the Education Research and Data Center.

At least part of the problem is how much time has passed since the students last sat in math class. Running Start students, who enrolled at Clark while still in high school, had the highest rate of college readiness in math — 59 percent. Math is fresh on their minds.

On the other end of the spectrum, nearly all students who graduated a year or more before starting college needed remedial work. Only 7 percent

of them were ready for college math.

But even students who'd just graduated in the spring performed poorly on the COMPASS test a few months later. Not even one in five of them were ready for Math 101.

The three big school districts' numbers were above that rate, but far from stellar. About 40 percent of Battle Ground students who last attended high school in the spring of 2011 and weren't Running Start students were ready for college math.

In the Evergreen district, 30 percent were college math ready. In Vancouver, it was 28 percent. Statewide, 40 percent of students immediately out of high school were ready for college math, said Paul Casillas, a longtime math professor at Clark.

The problem was illustrated by a list of most-popular courses for first-year college students included in the fact sheet. English 101 topped the list — a course every student who wants to get a transfer degree needs. But next on the list was Math 30.

Students taking Math 30 review fractions and decimals, Casillas said. They learn how to solve for X in basic equations, among other skills typically taught in seventh- or eighth-grade classes, he said.

He's been going into area high schools to preach to students the importance of taking four years of high school math.

"If you wait a year (with-

out math) and take our placement test, you won't be ready," Casillas said. "I tell them, 'It can save you thousands of dollars if you just take four years of math.'"

Taking more math than is required of them is the students' responsibility. But much of the reason for the poor placement scores in math is systemic, Casillas said.

"There really is a problem," he said. "The state standards don't measure college readiness. They measure something worthwhile, but it's not college readiness."

That may change at least to some degree under new state standards being phased in right now, school officials said.

Washington last year started switching students to a so-called End-of-Course exam in math. Instead of taking one big math test in 10th grade, often years after the

students learned the material covered in the state test, they will test after the end of the years in which they took geometry and algebra I, or integrated math I and II at some schools.

Passing those tests is a requirement for graduation, as is taking one additional year of higher-level math. Those rules are being phased in, with current sophomores having to abide by them fully when they graduate.

"Right now, we don't have 100 percent of kids passing geometry," said Bruce Kelley, director of assessment for Battle Ground Public Schools. "But in two years, we will."

line with many other states' curriculum, will help with the college-readiness gap seen in the report, said Ted Feller, director of secondary education at Evergreen Public Schools.

But even three years of math might not get enough students through the placement test. That's why Casillas, the Clark professor, has been working with Feller and his counterpart at Vancouver Public Schools to align high school curriculum and college entry requirements. They are still in the initial stages, but the process is under way.

Casillas will get full access to district test records to ferret out the gaps. He will look at curriculum for the first two high school years to determine which skills students must catch up on before they try to get into college.

And Feller will pick apart the college placement test data to see exactly which type of students struggled on it.

The solutions likely will not come on the high school end of things, Feller said. A culture needs to be changed.

He hopes to test kids as early as kindergarten to see who needs support in math. High school is too late to catch up, he said. Not just because of the amount of material to be covered, but because of expectations and self-esteem.

Students may have had years of discouraging experiences in math by the time they get into high school. And our culture allows them an easy way out.

"You hear adults say, 'I'm not good at math,'" Feller said. "And (they say it like) it's not a problem. Nobody ever says, 'I'm not good at reading.' But the bar is significantly raised in this digital age."

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**Paul Casillas**  
Clark College math professor

## Early appraisals

The new math rules and Washington's adoption of the Common Core standards, which will bring it in

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